Sexual health and social inequities in women on opioid substitution treatment: what are the opportunities for community pharmacy?

Medina Perucha, Laura

Award date:
2019

Awarding institution:
University of Bath

Sexual health and social inequities in women on opioid substitution treatment: what are the opportunities for community pharmacy?

Laura Medina Perucha

A thesis submitted for the degree of Doctor of Philosophy

University of Bath

Department of Pharmacy & Pharmacology

August 2019

“Lock up your libraries if you like;

but there is no gate, no lock, no bolt that you can set upon the freedom of my mind.”

A room of one’s own,

Virginia Woolf.

Table of Contents

Figures

Tables

Acknowledgments

I am most grateful to my participants, for sharing their stories. They are the true drivers of this research. I hope that I can at least honour your truths. This is for *you*.

To my big and merry team of supervisors – Hannah, Jenny, Charlotte, Sarah and Julie – for encouraging my autonomy while supporting me all the way. Also, for the most valuable contributions in all stages of my PhD. It has been a great honour to work with you all. To Hannah, for her humanity and kindness. To Jenny, for her integrity and example. To Charlotte, for her temperance and positivity. To Sarah, for her insightfulness. To Julie, for her excellence. You are all an inspiration to me and I could not have gotten this far without your guidance and encouragement.

I would also like to acknowledge the love and support of my family. To my father who, unknowingly, has always opened my eyes to social injustice and has seeded my critical thinking. To my mother, who has always believed in me and has fostered my independence. To my sister, for her unconditional support and compassion. To my nephews, for their energy and endless smiles. And to my grandfather, who created opportunities for all of us and whom I wish was amongst us today.

I would also like especially to thank Ernesto, the one who has held my hand through the highs and lows of this PhD. To Laia, Cris, Nere, Ire, Mariana, Anna, Jou, Fibla, Tamara, Patri and so many others who, despite the distance, make me feel loved every day. I miss you all deeply. Also to my lovely dogs who I love to bits and will always have a special place in my heart.

Last but not least to Óscar. For seeing *me*, for empowering me and all women, and for supporting me with compassion every day.

Thank you. Gracias. Gràcies.

Abstract

Women on opioid substitution treatment (WOST) are a group at risk for sexually transmitted infections (STIs) and blood-borne viruses (BBVs). This study aimed to explore the factors that are associated with sexual health risks among WOST, and the sexual transmission of STIs and BBVs. Also, to explore the opportunities for developing a sexual health service in community pharmacies in England. The design of this research was informed by the Intervention Mapping approach to design health promotion programmes. For this qualitative study, 20 WOST and 14 community pharmacists (CPs) were interviewed between October 2015 and April 2017. Four WOST and three CPs took part in focus groups that took place in September 2017. Recruitment for WOST took place in drug services and a service for sex workers. CPs were recruited through community pharmacies. Data were collected in Bath, Bristol and Midsomer Norton (South West of England). Qualitative data was analysed using Framework Analysis and Content Analysis. Findings indicated that there are multiple factors associated with STI/BBV risk among WOST. A Social-Ecological Model was developed including factors at the intrapersonal level – e.g., worthlessness – interpersonal level – e.g., trust in health professionals – organisational level – e.g., availability of sexual health services – community level – e.g., intersectional stigma – and public policy – e.g., current health policies. Using Intersectionality Theory, this research highlighted that social inequities of health are at the core of sexual health risks among WOST. Multiple public health strategies at different ecological levels need to be designed and implemented to reduce these inequities and prevent STIs and BBVs among WOST. Community pharmacy could play a key role in delivering sexual health services, providing equity and protecting the human rights of WOST. Suggestions for service design in community pharmacy are included in this thesis.

List of Abbreviations

AIDS – Acquired Immunodeficiency Syndrome

AWP – Avon and Wiltshire Mental Health Partnership

BBV(s) – Blood-Borne Virus(es)

CCG – Clinical Commissioning Groups

CP(s) – Community Pharmacist(s)

FA – Framework Analysis

GBV – Gender-based Violence

GP(s) – General Practitioner(s)

HBV – Hepatitis B Virus

HCV – Hepatitis C Virus

HIV – Human Immunodeficiency Virus

HPV – Human Papillomavirus

IM – Intervention Mapping

IPV – Intimate Partner Violence

LHT – Learned Helplessness Theory

NEP – Needle Exchange Programme

NHS – National Health Service

OST – Opioid Substitution Treatment

PI – Principal Investigator

PLHIV – People who live with HIV

PrEP – Pre-Exposure Prophylaxis

PWID – People who Inject Drugs

PWUD – People who Use Drugs

QCA – Qualitative Content Analysis

QoL – Quality of Life

STI(s) – Sexually Transmitted Infection(s)

WHOD – Women using Heroin and Other Drugs

WOST – Women on Opioid Substitution Treatment

CHAPTER 1. Introduction

This chapter provides an introduction to the context of this PhD. It includes a review of the literature and the aims and objectives.

1.1. The Case for Preventing Sexually Transmitted Infections and Blood-Borne Viruses

According to the last world estimates, there are 357 million new sexually transmitted infections (STI) cases every year worldwide (World Health Organization, 2016f). STIs are associated with more than 30 sexually transmissible bacteria, viruses and parasites (World Health Organization, 2016c, 2016f) and are primarily transmitted via sexual contact. The most prevalent worldwide are herpes simplex virus type 2 (417 million people), human papillomavirus (HPV) (291 million people), trichomoniasis (142 million people), chlamydia (131 million people), gonorrhoea (78 million people), and syphilis (6 million people) (World Health Organization, 2016c, 2016f). The most prevalent curable STIs[1] in the European Region by 2012 were chlamydia [women 3.9%, men 3.8%], trichomoniasis [women 5.8%, men 0.6%], gonorrhoea [women 0.6%, men 0.2%] and syphilis [women 0.1%, men 0.1%] (World Health Organization, 2012). Although most STIs are curable, they can lead to the development of serious health conditions and have a profound impact on sexual and reproductive health (World Health Organization, 2016f). STIs are linked to negative pregnancy outcomes (e.g. neonatal deaths) (CDC, 2016; Johnson, Ghanem, Zenilman, & Erbelding, 2011), increased human immunodeficiency virus (HIV) risk (ECDC, 2015; Seeman, Leinhos, & Neumann, 2013; World Health Organization, 2016c, 2016f), and low quality of life (Aral, Over, Manhart, & Holmes, 2006; World Health Organization, 2016c). When untreated, curable STIs such as chlamydia and gonorrhoea are major causes of pelvic inflammatory disease and infertility in both women (ECDC, 2015; World Health Organization, 2016c, 2016f) and men (Ochsendorf, 2011). Cervical cancer and other anogenital cancers are associated with HPV, which is the second most prevalent STI worldwide (de Martel, Plummer, Vignat, & Franceschi, 2017; World Health Organization, 2016c, 2016f, 2018c). Antibiotic resistant STIs, especially gonorrhoea, are also a growing concern worldwide as they may become untreatable (Unemo & Nicholas, 2012).

HIV is also sexually transmitted. It affects an estimated 33.3 million (range of 30.9 million – 36.1 million) people around the world. In 2015, new annual cases of HIV infection were estimated to range between 1.8 million to 2.4 million, and there were 1.1 million estimated HIV-related deaths (World Health Organization, 2016b). HIV infection may result in developing Acquired Immunodeficiency Syndrome (AIDS) over time, a disease that weakens the immune system and increases the risk of opportunistic infections and other health conditions such as cancerous tumours

[1] These estimates do not include data on non-curable STIs, such as the human papillomavirus or genital herpes.

(CDC, 2016; World Health Organization, 2016e). The annual incidence of HIV (UNAIDS, 2015) and HIV-related deaths (World Health Organization, 2016b) have significantly dropped in the last 15 years due to the advances in HIV prevention and HIV/AIDS treatment.

Despite the risk is low, other blood-borne viruses (BBVs) such as Hepatitis B virus (HBV) and Hepatitis C virus (HCV) can also be transmitted through sex, thus this research also focused on the prevention of HBV and HCV. It is however important to acknowledge the potential limitations and negative outcomes of this inclusion (Harris & Rhodes, 2013). This point will be further expanded as a limitation of this study (see Discussion, page 233). Global estimates suggest that 257 million and 71 million people are living with chronic HBV and HCV respectively in 2015 (World Health Organization, 2017). Viral hepatitis is a leading cause of death and can cause cirrhosis, liver failure and liver cancer (NHS, 2016, 2018; Stanaway et al., 2016). HIV co-infection is high – 2.6 million HIV-positive individuals are also living with HBV, and 2.9 million with HCV –, which increases mortality risk (World Health Organization, 2016d). At the end of 2013, there were 658,000 and 672,000 HBV- and HCV-related deaths respectively (World Health Organization, 2016a, 2016d). Despite the efforts made over the last few years, HCV cases and HCV-related deaths continue to rise. Furthermore, the incidence of HBV is projected to remain unchanged for the next 40-50 years (World Health Organization, 2016d).

The UK has been identified as one of the European countries with the highest rates of STIs (Department of Health, 2010; ECDC, 2015). In 2017, there were 625,925 new STI diagnoses in England, including HIV (Public Health England, 2018a). By the end of 2016, there were 89,400 people living with HIV in the UK (Public Health England, 2017c). Heterosexual sex was the second most probable route for acquiring HIV in the UK by 2016 (Public Health England, 2017d). In the same year in England, there were 11,901 confirmed acute cases of HBV (Public Health England, 2017a) and approximately 160,000 people were estimated to be living with chronic HCV (Public Health England, 2018b). Individuals of socially excluded groups, such as drug-using populations, were disproportionately represented in these figures. Despite a seeming drop in HCV-related deaths in the UK in the last year, more efforts are needed to decrease the incidence and prevalence of HCV (Public Health England, 2018b) particularly amongst vulnerable populations.

1.1.1. An Overview of Public Health Strategies to Prevent STIs and BBVs

The global burden of disease of STIs and BBVs is high and represents a major public health concern worldwide and in the UK. Advances in prevention, diagnosis and treatment have had a significant impact on the incidence, prevalence, management and outcomes of STIs and BBVs (Aral, Padian, & Holmes, 2005; Eaton & Kalichman, 2014; G. Hughes & Field, 2015; World Health Organization, 2016b, 2016c). However, there are still important gaps in STI/BBV prevention and

treatment. The present study aims at addressing some of these gaps and contributing to the body of research on the prevention of STIs and BBVs.

Since the first cases of HIV in the early 1980s (CDC, 1981), the prevention of HIV and other BBVs has been at the core of public health and human development strategies worldwide (Mayer & Pizer, 2008; United Nations, 2015a, 2015b). Most efforts to prevent STIs and BBVs among people who use drugs (PWUD) have focused on preventing HIV transmission (and more recently viral hepatitis), overlooking sexual contact as a main vector of BBV transmission (Des Jarlais et al., 2007; Hagan, Perlman, & Des Jarlais, 2011; Kral et al., 2001; Steen, Elvira Wi, Kamali, & Ndowa, 2009; Strathdee & Sherman, 2003). On the other hand, the prevention of STIs has been largely linked to HIV prevention (Aral et al., 2006; Steen et al., 2009; WHO/UNAIDS, 2008).

HIV can be transmitted sexually, perinatally and parenterally. There are several behavioural and biomedical strategies for the prevention of HIV (Barré-Sinoussi, Ross, & Delfraissy, 2013). These mainly focus on: 1) promoting condom use (Charania et al., 2011; Mason-Jones et al., 2016; Moreno et al., 2014; Weller & Davis, 2002); 2) reducing sexual risk behaviours (e.g., condomless sex) (Del Rio, 2014; Hogben, Ford, Becasen, & Brown, 2015; Mason-Jones et al., 2016; Ross, 2010); 3) promoting the uptake of pre-exposure prophylaxis (PrEP) (Baeten et al., 2012; Baker, 2013; Choopanya et al., 2013; Del Rio, 2014; Grant et al., 2010; McCormack et al., 2016; Okwundu, Uthman, & Okoromah, 2012); 4) promoting the uptake of post-exposure prophylaxis (Del Rio, 2014); 5) antiretroviral therapy initiation and adherence among people living with HIV (PLHIV) (Attia, Egger, Müller, Zwahlen, & Low, 2009; Baker, 2013; Del Rio, 2014); 6) prevention of mother-to-child transmission (De Cock, Jaffe, & Curran, 2012; Novitsky & Essex, 2012; Rakhmanina & van den Anker, 2014; Teasdale, Marais, & Abrams, 2011); 7) promoting male circumcision (De Cock et al., 2012); 8) ensuring HIV screening of donated blood (De Cock et al., 2012); 9) encouraging HIV testing (Del Rio, 2014; R. Lee, Cui, Muessig, Thirumurthy, & Tucker, 2014); 10) developing vaccines (Baker, 2013); 11) preventing gender-based violence (GBV) (Heintz & Melendez, 2006; Stockman, Lucea, & Campbell, 2013); and 12) implementing opioid substitution treatment (OST) (Gowing, Farrell, Bornemann, Sullivan, & Ali, 2011) and needle exchange programmes (NEP) (Vlahov & Junge, 1998) for people who inject drugs (PWID). However, the cost-effectiveness of HIV prevention interventions still remains unclear (Galárraga, Colchero, Wamai, & Bertozzi, 2009; Jacobsen & Walensky, 2016). It is also crucial to consider the combination of biomedical approaches and strategies to address social, cultural and political factors associated with HIV transmission (Atujuna et al., 2018; Bekker, Beyrer, & Quinn, 2012; Coates, Richter, & Caceres, 2008; Kippax, 2012).

The development of vaccines (for HBV and Hepatitis A only) (Ansaldi, Orsi, Sticchi, Bruzzone, & Icardi, 2014; Aspinall, Hawkins, Fraser, Hutchinson, & Goldberg, 2011; Trepo, 2014) and the prevention of vertical transmission (i.e., mother-to-child transmission) (Aspinall et al., 2011;

Gentile, Zappulo, Buonomo, & Borgia, 2014) have led to the prevention of viral hepatitis. Other approaches are: 1) the screening of blood and blood products – including among organ and tissue donors – (Aspinall et al., 2011); 2) the promotion of condom use (Aspinall et al., 2011); 3) the implementation of OST and needle exchange programmes (NEP) for PWID (Aspinall et al., 2011; Platt et al., 2017); and 4) testing for viral hepatitis (L. Jones et al., 2014). The evidence on the cost-effectiveness of hepatitis prevention strategies among the general and key populations (e.g., PWID) is mixed (Hahné et al., 2013; Krahn et al., 2005; Wright & Tompkins, 2006). Also, despite hepatitis vaccinations are highly effective (Børresen et al., 2012), vaccination uptake is still low among key populations (Public Health England, 2017f). Further efforts are needed to decrease the incidence and mortality associated with HBV and HCV (World Health Organization, 2016d).

On the other hand, the prevention of STIs has been dominated by the promotion of condom use (Charania et al., 2011; Holmes, Levine, & Weaver, 2004; Inman, van Bakergem, LaRosa, & Garr, 2011; Mason-Jones et al., 2016; Moreno et al., 2014; K. Wang, Brown, Shen, & Tucker, 2011). Other strategies include: 1) the reduction of sexual risk behaviours (e.g., having multiple sexual partners) (Coakley et al., 2017; Inman et al., 2011); 2) the promotion of STI testing (R. Lee et al., 2014); 3) encouraging the delay of sex initiation (Aarons et al., 2000; Inman et al., 2011); 4) vaccination for HPV (Kahn, 2005); and 5) the prevention GBV (Heintz & Melendez, 2006; Stockman et al., 2013). Although some strategies may be effective (Wilton et al., 2009; World Health Organization, 2016c), the evidence available remains unclear (Berg, 2009; Minnis & Padian, 2005; Shahmanesh, Patel, Mabey, & Cowan, 2008). As for the prevention of HIV, the combination of strategies seems to be most promising (World Health Organization, 2016c; Zimet, Mays, & Fortenberry, 2000).

Apart from the specific strategies for prevention, the need to maintain the focus on addressing social and health inequities, and advocate for human rights in STI/BBV prevention should not be forgotten. Thus, the needs of populations most at risk for STIs and BBVs should be considered to design effective and comprehensive health programmes.

1.2. Women Using Drugs: A Priority Group for STI/BBV Prevention

Social and health inequities, such as gender inequities, are barriers for disease prevention and access to social and health services. These inequities disproportionally affect key populations, such as PWUD (UNAIDS, 2014b). Social and health inequities are violations of human rights, as they involve an unequal access to civil, political, economic, social, health and cultural rights (Krieger, 2014; United Nations, 2015b; World Health Organization, 2018b; World Health Organization Regional Office for Europe, 2013, 2016). Stigma, discrimination and violence are often rooted in social inequities, and are powerful barriers to health promotion. Punitive laws, policies and practices violating human rights (e.g., deportation of HIV-positive individuals and ban the entry of PLHIV remain a reality in some countries (UNAIDS, 2014a, 2015). In the UK, socially excluded groups (e.g.,

some PWUD) experience constant stigma, discrimination and violence at an individual and socio-structural level. This has a negative impact on preventive strategies and raises the question of how human rights are protected in UK and other *developed* countries. Debates on sex work are an example. On one hand, the criminalisation of sex work has been identified by some to be a powerful measure that diminishes public health efforts and increases individual and social harm (Kalichman, 2017; UNAIDS, 2014a, 2015). This has led to social movements and advocacy research to claim for the decriminalisation of sex work, to ensure the rights of sex workers, and improve their physical safety, health and wellbeing (Decker et al., 2015; Morton et al., 2002; Weitzer, 2009). On the other hand, feminist movements have advocated for the eradication of sex work as part of the fight against patriarchy[2]. This is to ensure gender equity through tackling the sexualisation and objectification of women GBV (Walby, 1990).

PWUD are a group that experience stigma, discrimination and violence at the individual (e.g., interpersonal aggression) and socio-structural level (e.g., health policies not addressing the sexual health needs of PWUD). They are also one of the population groups most at risk for STIs and BBVs (Cavanaugh, Hedden, & Latimer, 2010; Des Jarlais et al., 2011; Hwang, Zack, Rickman, & Holleman, 2000; Kuyper et al., 2005; Public Health England, 2018b; UNAIDS, 2014a, 2015, 2016a; World Health Organization, 2016a, 2016b, 2016c, 2016d), and one of the priority populations for the prevention of STIs and BBVs worldwide. This heightened risk among drug users is mainly related to sharing needles and paraphernalia, engaging in sexual risk behaviours (e.g., condomless sex) and experiencing sexual violence (Alves, Goulart, Lara, Lucchese, & Vera, 2016; Booth, Kwiatkowski, & Chitwood, 2000; Branson & Clemmey, 2008; Des Jarlais et al., 2011; N. L. Edelman, Patel, Glasper, & Bogen-Johnston, 2014; Elifson, Klein, & Sterk, 2006; Guimaraes et al., 2018; Hagan et al., 2011; Kuyper et al., 2005; T. S. Lee, Chen, & Chang, 2011; Strathdee & Stockman, 2010).

The most prevalent BBV among drug users is HCV (Public Health England, 2017f; United Nations Office on Drug and Crime, 2017), with 6.1 million PWID living with HCV and high mortality rates (United Nations Office on Drug and Crime, 2017). In the UK, two of every five PWID has HCV (Public Health England, 2017f, 2018b). Although most transmissions are parenteral, the transmission of HCV through sexual contact is still possible and should also be a target of preventive programmes (Public Health England, 2017f, 2018b).

PWUD are 28 times more likely to be living with HIV, compared to adults in the general population worldwide, and one in 10 PWID globally are positive for HIV (UNAIDS, 2016b). It is estimated that 1.6 million PWID worldwide are living with HIV (United Nations Office on Drug and Crime, 2017). In the UK, HIV is low among injecting drug users (0.9%) although the prevalence is

[2] A system of social structures and practices in which men dominate, oppress and exploit women (Walby, 1990).

still higher than in the general population (0.16%) (Public Health England, 2017f). There have been recent outbreaks of HIV among PWID in Glasgow and South West England, which highlight the ongoing risk of transmission and the need for early detection of HIV. This is also especially critical as late HIV diagnoses among PWUD are still a concern in the UK (Public Health England, 2017f).

Drug-using populations, and especially PWID are one of the key populations at higher risk for HBV (World Health Organization, 2017). The prevalence of HBV is low among drug users in the UK, with an estimate of 1 out of 200 PWID currently living with HBV. Among PWUD, the risk of sexual transmission of HBV is increased due to the higher rates of HBV and HCV among PWID and their sexual networks, due to injecting risks (e.g., sharing needles) (World Health Organization, 2016d). Despite being a vulnerable group for HBV, only one quarter of PWID in the UK are vaccinated for HBV. Current recommendations advise that vaccination uptake should be maintained and improved among PWID (Public Health England, 2017f).

Drug users have also been globally identified as a group with an increased vulnerability to STIs (World Health Organization, 2016c). In spite of this, there are no official reports of the prevalence of STIs among PWUD worldwide or in the UK. Some efforts have been made to research the epidemiology of STIs amongst drug-using populations. These studies have found significantly higher rates of STI prevalence among PWUD, compared to rates among the general population. These studies suggest a 24-38% of lifetime STI prevalence (Guimaraes et al., 2018; Hwang et al., 2000), and a 6% (Khan, Berger, Hemberg, O'Neill, Penniman Dyer, et al., 2013) and 8% (Bradshaw, Pierce, Tabrizi, Fairley, & Garland, 2005) prevalence at the time of the research. Other studies have explored the lifetime prevalence of syphilis among drug users and reported a prevalence of 5.7% (López-Zetina et al., 2000) and 7.78% (B. X. Wang et al., 2013). Overall, there is a lack of epidemiological data on STIs among PWUD. This may suggest a lack of attention and surveillance of STIs among this population group. Further efforts need to be placed on determining the epidemiology of STIs among PWUD, to better understand the extent of STI among this population group.

Women using drugs are particularly vulnerable to STIs and BBVs. This heightened vulnerability is mostly rooted in social and gender inequities, including GBV (Blankenship, Reinhard, Sherman, & El-Bassel, 2015; Bourgois, Prince & Moss, 2004; N. L. Edelman et al., 2014; El-Bassel, Gilbert, & Rajah, 2003; El-Bassel, Gilbert, Witte, Wu, & Chang, 2011; El-Bassel, Gilbert, Wu, Go, & Hill, 2005; Iversen, Dolan, Ezard, & Maher, 2015; Kilpatrick, Acierno, Resnick, Saunders, & Best, 1997; Kulesza et al., 2016; UNAIDS, 2015, 2016b). Social inequities (e.g., poverty) are recognised to be associated with poorer general health and increased mortality (Dahlgren & Whitehead, 1991; Mackenbach et al., 2008; D. S. Morrison, 2009; Pampel, Krueger, & Denney, 2010; Schanzer, Dominguez, Shrout, & Caton, 2007; World Health Organization, 2014). Gender inequities refer to the unequal access to human and civil rights, and to the unequal access to social, economic and political

power (UN General Assembly, 1948). Women worldwide are the ones most affected by gender inequities and GBV. Gender inequities and GBV are known to have a significant negative impact on women's health (Annandale & Hunt, 2000; Sen & Östlin, 2008). For drug-using women, the engagement in transactional sex[3] increases the risk for STIs and BBVs (Brooks et al., 2010; Duff et al., 2013; Folch et al., 2013; Mitchell & Latimer, 2009) and inconsistent use of condoms (N. L. Edelman et al., 2014; T. S. Lee et al., 2011). Women are also disproportionally affected by asymptomatic STIs, compared to men (World Health Organization, 2016c). This factor is important to consider as women may delay help-seeking behaviours and therefore timely screening, diagnosis and treatment. Furthermore, uptake of sexual health services among women using drugs seems to be poor (N. L. Edelman, Patel, Glasper, & Bogen-Johnston, 2013; C. L. Morrison, Ruben, & Beeching, 1995).

The ongoing neglect of STI prevention and sexual transmission of BBVs also applies to STI/BBV prevention among drug-using populations (Des Jarlais, Feelemyer, Modi, Arasteh, & Hagan, 2012; Khan, Berger, Hemberg, O'Neill, Dyer, et al., 2013; Kral et al., 2001; Liu, Li, & Li, 2012; Strathdee, 2003; Strathdee et al., 2001; Strathdee & Sherman, 2003). In fact, current sexual health strategies addressing the sexual and reproductive health needs of PWUD in the UK are still almost exclusively centred in preventing the parenteral transmission of HIV and HCV (Public Health England, 2015). Despite the efforts in preventing HIV and HCV among drug-using populations, there are still significant gaps in research and practice to promote the sexual health and wellbeing of this group (Mathers et al., 2010; Meader, Li, Des Jarlais, & Pilling, 2010; Petersen, Myers, van Hout, Plüddemann, & Parry, 2013; Vanthuyne, Mundt-Leach, Boyd, Broughton, & Pittrof, 2016).

This study aims at better understanding how to prevent the sexual transmission of STIs and BBVs among a group of women who use drugs. This stems from the need to tackle the unique social and (sexual) health inequities experienced by women using drugs. The study focuses on women who are on OST, a form of treatment that aims at replacing the use of illegal opioids (e.g., heroin) for medical treatment with opioids (e.g., methadone) (Dole & Nyswander, 1965). Evidence suggests that OST is effective in reducing drug-seeking and drug-using behaviours, drug-related mortality, criminal behaviour, increased adherence to antiretroviral treatment for HIV, and HIV/BBV risk (Alto & O'Connor, 2011; Cornish, Macleod, Strang, Vickerman, & Hickman, 2010; Degenhardt et al., 2011; Gowing et al., 2011; Lawrinson et al., 2008; MacArthur et al., 2012; Malta, Strathdee, Magnanini, & Bastos, 2008; Manhapra, Rosenheck, & Fiellin, 2017; Marsch, 2002). Psychosocial approaches have been recommended by clinical guidelines for drug misuse and dependence (Clinical Guidelines on Drug Misuse and Dependence Update 2017 Independent Expert Working Group, 2017), however the

[3] *Transactional sex* refers to the exchange of sex for money and/or goods (e.g., drugs) due to "a financial necessity, a desperate measure, or opportunistic and temporary responses to limited income options" (McMillan, Worth, & Rawstorne, 2018). The term transactional sex is used in this thesis, as opposed to *sex work*. Sex work offers a definition for the exchange of sex for money or goods, framed as a job rather than a necessity. Using transactional sex was more appropriate to refer to the experiences of WOST.

evidence on the benefits of psychosocial services alongside OST is still conflicting (Amato, Minozzi, Davoli, & Vecchi, 2011; Day & Mitcheson, 2017; Dugosh et al., 2016).

There are two main reasons to focus this research on WOST in particular. First, drug-using women are a hard-to-reach population. Accessing women who are already accessing health services was considered a first step to reach other drug-using women who are not engaging in services in future research. Second, WOST collect their OST in community pharmacies[4] at least a few days per week as, in the UK, OST is first delivered daily and is supervised by community pharmacists (CPs). As clients progress, the frequency of collection lowers and some clients may be allowed to take their medication outside pharmacy premises. Regardless of the actual frequency, the regular access to health services and engagement with CPs may be a unique opportunity to prevent STIs and BBVs in this group of women.

1.3. Community Pharmacy and Health Promotion: Missed Opportunities

Over the last few years, CPs have increasingly incorporated health promotion as one of their roles. Even though CPs have been identified as key deliverers of public health interventions (C. Anderson, 2000; S. Anderson, 2007; S. Brown, Henderson, & Sullivan, 2014; T. J. Brown et al., 2016; Todd et al., 2014), stronger evidence is required on effective implementation of health promotion programmes (Department of Health, 2008; Eades, Ferguson, & O'Carroll, 2011; Public Health England, 2017e). Community pharmacies in the UK dispense the majority of OST, which is often delivered on a daily basis. Providing OST presents an opportunity to promote sexual health among clients accessing this service as brief interventions.

CPs have been recognised as potential deliverers of sexual health promotion services to the general population (Public Health England, 2017e; G. Thomas et al., 2010), and drug-using groups (Robertson, Bond, & Matheson, 2015). Nevertheless, their role in STI prevention for PWUD has been limited compared to BBVs and other health services (e.g., emergency hormonal contraception) (Robertson, Bond, & Matheson, 2015). Community pharmacy-based services for drug-using populations have been limited to harm-reduction strategies to prevent BBVs, such as NEP (T. Watson & Hughes, 2012). Although OST clients can access sexual health services that are open to the general population, there are no specific sexual health services addressing the sexual health needs of this group. Sexual health services available in community pharmacies are chlamydia screening, HIV testing, free condom distribution, sale of condoms and STI treatment. There are also reproductive health services offered, such as contraception, emergency hormonal contraception, and pregnancy tests (Public Health England, 2017e). Some services are only available to people between 15 and 24 years old (Public Health England, 2017e). It has been argued that specific services should be offered

[4] Pharmacies that offer services directly to communities, also known as ‘high street pharmacies”.

to OST clients due to the special needs of this group and the barriers that they may encounter accessing services, in comparison to other pharmacy clients (E. J. Edelman et al., 2014; N. L. Edelman et al., 2014). In addition, there are no clear referral pathways between sexual health and drug use services. These links would be very beneficial because of the association between drug use and sexual health.

Previous research suggests that CPs seem to hold positive views on promoting health in the community pharmacy setting (Chaar et al., 2013; Parsons et al., 2013). Certain barriers may however create challenges to promote health among OST clients within community pharmacies. The most predominant are: 1) pharmacists' negative attitudes and stigma towards OST clients (Eades et al., 2011; Luger, Bathua, Alcorn, & Power, 2000; Luty, Kumar, & Stagias, 2010; McLaughlin, McKenna, Leslie, Moore, & Robinson, 2006; Robertson et al., 2015; G. Thomas et al., 2010; van Boekel, Brouwers, van Weeghel, & Garretsen, 2013); 2) pharmacists' lack of training (C. Anderson, 2000; Eades et al., 2011; Jaffray et al., 2014; Luger et al., 2000; Real, Gracia Vasquez, Formica, & Palma, 2014; G. Thomas et al., 2010; T. Watson & Hughes, 2012); 3) time constraints (Real et al., 2014; G. Thomas et al., 2010; T. Watson & Hughes, 2012); 4) pharmacists' fear of clients' negative attitudes and disruptive behaviours (e.g. shoplifting) (Chaar et al., 2013; Luger et al., 2000; Robertson et al., 2015; T. Watson & Hughes, 2012); 5) pharmacist-service user relationship (Luger et al., 2000); 6) lack of physical space and privacy (Luger et al., 2000; Real et al., 2014); and 7) lack of economic incentives (C. Anderson, 2000; Real et al., 2014; T. Watson & Hughes, 2012). Most OST service users find supervised opiate dispensing programmes to be reasonable services (Luger et al., 2000). However, individuals receiving OST have also reported a lack of privacy and fear negative and stigmatising attitudes from CPs (Luger et al., 2000). Even though several barriers have been already identified, further research is needed to explore service- and client-specific barriers and facilitators. Community pharmacies in the UK are increasingly being incorporated in public health strategies, partly as a way to reduce public health costs (Agomo, 2018; Oswald & Adcock, 2016; M. C. Watson et al., 2014). Exploring the views of WOST and CPs is crucial in order to improve and develop new services that address the sexual health needs of WOST within community pharmacy.

1.4. Research Questions and Aims

The primary research questions of this study were:

1. What are the individual and socio-structural factors associated with STI/BBV sexual transmission among WOST (i.e., factors associated with condomless sex and uptake of sexual health services[5])?

[5] Sexual health services include screening, treatment and counselling for STIs and BBVs, sessions and counselling on STI/BBV prevention, vaccinations for viral hepatitis, services for sexual violence, and other.

2. What role could CPs play in STI/BBV prevention in community pharmacies in England?
3. What are the barriers and facilitators of preventing STIs and BBVs in community pharmacies in England, according to WOST and CPs?
4. What could the main characteristics of a sexual health service for WOST in community pharmacies in England be?

The main aim of this PhD was to explore the opportunity of designing and implementing a sexual health service for WOST in community pharmacies in England.

The objectives of this research were:

1. To identify and explore the factors associated with the heightened risk of sexual transmission of STIs and BBVs among WOST (i.e., factors associated with condomless sex and uptake of sexual health services).
2. To explore the needs of WOST in relation to STI and BBV prevention.
3. To explore the potential role of CPs in preventing the sexual transmission of STIs and BBVs among WOST.
4. To offer initial recommendations for the design of a sexual health service for WOST in community pharmacies in England.

CHAPTER 2. Methodology

The main aim of this PhD was to explore the opportunity of designing and implementing a sexual health service for WOST in community pharmacies in England. This is to prevent the transmission of STIs and BBVs among WOST. This chapter describes the research philosophy and research design for this PhD research. It also includes a reflexivity piece that serves as an introduction for the following chapters of this thesis.

2.1. Research Philosophy

Philosophy is embedded in research as a system of beliefs and assumptions. These can be in relation to human knowledge (epistemological assumptions), the nature of social realities (ontological assumptions), and the influence of the researchers' values in research (axiological assumptions) (Saunders, Lewis, & Thornhill, 2016). Research methodology, strategies, data collection and analysis are dependent on philosophical positions. Research is then neither detached from the researchers' views of the world nor isolated from existing social realities (Bryman, 2016).

2.1.1. Epistemological and Ontological Considerations

Epistemology addresses the question of what can be considered *knowledge*. The main epistemological debate in social sciences is whether the principals, procedures and ethos of research in natural sciences should be applied to study the social world. Positivism and realism are epistemological positions that advocate for the use of the natural sciences research approach to social sciences (Bryman, 2016). These aim at *explaining* human behaviour as an external reality, that is separate to the descriptions and interpretations that can be inferred from it. It also assumes that there is one reality that can be measured. On the other hand, interpretivism aims at *understanding* human behaviour through people's constructed meanings of a "perceived reality" (Von Wright, 1971). Interpretivism has its roots in the hermeneutic-phenomenological approach, which appeared as a critique to the positivist tradition. This approach offers an empathetic understanding of the social world in which the meanings of experience are understood from the social actor's perspective. Interpretivism assumes that our social world (and research data) are the result of interpretations. According to this epistemological position, there are three levels of interpretation in social research. The first refers to the interpretations made by the researcher in relation to a social scientific frame. The second are the interpretations (of interpretations) made by the researcher, often labelled the "double hermeneutic". The third level of interpretation describes the researcher's interpretations in relation to the concepts, theories, and literature (Bryman, 2016; Schutz, 1962; Von Wright, 1971).

Ontology is the philosophical study of what constitutes *reality*. Ontology in social research is concerned with the objectivity and subjectivity of social entities. In other words, whether social

entities and "reality" are of an objective nature and external to social actors (objectivism), or "reality" is subjective and socially constructed by social actors *(*constructionism) (Bryman, 2016).

This study adopted a pragmatic approach to epistemology and ontology. Pragmatism emerged as an alternative to the positivism/constructivism dualism. It is concerned about practical applications and solutions to research, and it is a common approach in mixed-methods research (Creswell, 2014; Tashakkori & Teddlie, 1998). A pragmatic approach also implies acknowledging that research occurs within social, historical, political and cultural contexts. Pragmatism was considered to be the most appropriate approach for this PhD as it offered the flexibility and freedom to choose the methods and procedures that were most relevant for each stage of the study. Also, as its focus on context fits with the values and principles of this research (see Axiological Considerations section, page 13).

On one hand, this PhD research adopted an interpretative/constructivist approach as it aimed to understand participants' constructed meanings of their own experiences. It considered social "reality" to be dynamic, in constant change, and shaped by the interpretations and constructed meanings of social actors. This study took an interpretivist approach as an acknowledgment of the need for interpretation (or hermeneutics) in research, especially when using qualitative methods (Willig, 2017). Interpretation does not only allow to give meaning to research data. Interpretation is also a means to "give voice" to those in situations of social and research exclusion, such as WOST. For this PhD, it was vital that WOST and CPs were main drivers of the research so that the research findings reflected the participants' subjective realities. This was thought to lead to a fairer representation of the needs and experiences of WOST and CPs.

On the other hand, this PhD research included a systematic literature review and the use of systematic and "directed" methods of qualitative analysis – Qualitative Content Analysis (QCA) (H. F. Hsieh & Shannon, 2005) –. Conducting a systematic literature review involved reporting quality in terms of inter-rater reliability to validate the screening process for the inclusion and exclusion of publications. It also comprised a series of systematic steps that were based on a set of inclusion and exclusion criteria (see page 19). This is rather a positivist/objectivist perspective to research, as it considers that knowledge and reality are objective and measurable. Using QCA (see page 28) was rather a deductive approach to qualitative data analysis, which fits more with positivism and objectivism.

2.1.2. Axiological Considerations

Axiology refers to the influence of the researchers' values in the research process. This involves research design, data collection, data analysis (and interpretation), and write-up and presentation of the data (Bryman, 2016). All human beings hold values, and researchers are not an exception. The researchers' values are openly acknowledged in this thesis to offer transparency.

Reflexivity was an important part of this research and serves as an exercise to recognise the impact of the researchers' values throughout the research process (see Reflexivity section, page 42). The core values that shaped this study were feminism, equity and human rights. Despite being distinct values, these intersect with each other. These values became essential to this research through periods of reflexivity and the researcher's personal values and experiences.

2.1.2.1. Feminism and Feminist Research

Feminism is not just about women. Feminism is about humanity and human rights. In her essay "Men Explain Things to Me", Rebecca Solnit recalls Marie Sheer's bold definition of feminism: *"feminism is the radical notion that women are people"* (Solnit, 2014). Feminism is a social, political and economic movement rooted in the belief that *all* human beings should be treated with equity, and the same freedom and justice. Thus, feminism concerns both women *and* men, and should not be understood as a fight against men, but instead a fight for equity, freedom and justice. Feminist research follows three main principles: (1) opposition to dualist thinking, (2) embracing process thinking, and (3) a focus on promoting and studying change (Ferguson, 2017; C. Hughes, 2002).

According to feminist thinking, *dualism* is a simplification of the complexity of humans and the world, and leads to the development of hierarchies and power imbalances (e.g., between women and men). Thus, feminist research rejects the idea of constructing dualist conceptualisations of "reality". Instead, it encourages the study of complexity and invites researchers to interpretivism (Ferguson, 2017; C. Hughes, 2002).

Process thinking recognises the social world as dynamic and ever changing. Process thinking is concerned about the influence of historical processes and relationships between social elements into constructing "reality". This links with the refusal of essentialism – a philosophical concept that ascribes the innate existence of realities and universal validity of essence – as it limits gender differences as innate (and unchangeable) (Ferguson, 2017; Sayer, 1997). Thus, instead of taking a determinist and biological reductionist perspective, feminist research embraces constructionism.

Lastly, feminist research is activist research. Alongside feminist movements, feminist research takes action to reach equity, freedom and justice. This principle is essentially a fight for equity and human rights, which are the other core values of this research.

2.1.2.2. Equity and Human Rights

Equity is an ethical concept rooted in distributive justice (Braveman & Gruskin, 2003b). Inequity results from disparities in political, social and economic power experienced by different social groups and communities (Krieger, 2014; World Health Organization, 2018a). These inequities

are grounded in inequalities associated with gender, ethnicity or race, disability, health status, poverty, and other factors associated with a lack of social power. Health equity is a human rights issue (Braveman & Gruskin, 2003b; Castillo, Garrafa, Cunha, & Hellmann, 2017; Fox & Meier, 2009; Friedman & Lawrence; United Nations, 1948). As stated in the Universal Declaration of Human Rights (United Nations, 1948), "*Everyone has the right to a standard of living adequate for the health and well-being of himself* (or herself) *and of his* (or her) *family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his* (or her) *control" (*Article 25). This right, as all others in this declaration, are entitled to anyone *"(…) without distinction of any kind, such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status"* (Article 2). It is however unclear what the definition of *"circumstances beyond his* (or her) *control"* refers to in Article 25 of this declaration. This is a grey area as, following these premises, it is unclear whether behaviourally preventable health conditions (e.g., HIV) may be accounted for as situations "under" or "beyond" the individual's control. Also, there are some aspects of a person's identity that are not considered in Article 2, such as gender, sexual orientation and occupation. There is then a lack of clarity and even a gap in how universal human rights to health are defined. This research recognises the existing gaps in how health equity is defined, and the realities of the perpetuation of health inequities. It is an aspiration of this thesis to highlight existing health inequities and offer guidance to address them, to reach equity and ensure fundamental human rights.

2.1.3. Research Approach and Theory Development

This study mostly followed an inductive approach to the relationship between theory and research, as generating knowledge and theory development were the intended outcomes of the research. Inductivism differs from a deductive approach, which seeks to conduct research based on theory and the hypotheses deduced from it (Bryman, 2016). The ability and validity of inductive research to generate theory has been criticised, especially as inductivism assumes that theoretical statements can be inferred from singular "observational statements" (Bendassolli, 2013). However, inductive and deductive approaches should be understood as tendencies rather than opposed and distinct strategies. This research also included a certain degree of deduction, as previous theory and knowledge informed the research design. Understanding inductive and deductive research within a continuum, this study was centred in a more inductive style of thinking. This was because of the explorative nature of this study, which aimed at generating conclusions and contributing to theory building. Besides, taking an inductive approach facilitated a more open analysis and interpretation of the data whilst still considering the epistemological, ontological and axiological facets of this piece of research. However, a more deductive approach was taken to analyse the focus groups (see page 27)

based on the needs for the research and the nature of the data. This allowed for a more structured analysis that complemented other data from this research.

2.2. Research Design

This PhD is composed of two different studies to inform the development of a sexual health service in community pharmacies for WOST. **Study 1** aimed to review the literature to identify factors associated with the risk of STIs and BBVs among women using heroin and other drugs (WHOD) (see page 19). **Study 2** was a qualitative study that aimed to 1) explore the factors associated with the risk of STIs and BBVs among WOST, 2) explore the needs of WOST in relation to STI/BBV prevention, 3) explore the role of CP preventing STIs and BBVs among WOST, and 4) offer initial suggestions for the design of a pharmacy-based sexual health service for WOST (see page 22).

2.2.1. Service Design: an Intervention Mapping Approach

To date, public health strategies to prevent STIs and BBVs among WOST and other PWUD have primarily taken an expert-led approach, which have not included the participation of community members in the programme planning process. They have often perpetuated the "blame culture" towards PWUD (Pickard, 2017). Participatory action and partnership with the potential service users and deliverers of a health service can facilitate and benefit the development of health promotion programmes (Israel, Schulz, Parker, & Becker, 1998; Israel et al., 2008). Involving service users and deliverers may also help address blame and stigma towards PWUD, as a participatory design would involve developing health services that are more committed to *their* needs (rather than focus on health promoters' needs).

Given that complex phenomena requires from complex action, it seems relevant to adopt a Social-Ecological Framework (Bronfenbrenner, 1979, 1994; McLeroy, Bibeau, Steckler, & Glanz, 1988; Stokols, 1992, 2003), to capture psychosocial and socio-structural factors associated with STI/BBV risk and promoting sexual health among WOST (Baral, Logie, Grosso, Wirtz, & Beyrer, 2013; Degenhardt et al., 2010; El-Bassel, Terlikbaeva, & Pinkham, 2010; Wellings et al., 2006).

Intervention Mapping (IM) is an approach to the planning of health promotion programmes (Bartholomew Eldredge et al., 2016) that has informed the research design and process of this PhD. This approach is a systematic tool that has been widely used worldwide. It is founded on four main principles: 1) theory and evidence as crucial to service development, 2) ecological models and systems thinking (Simons-Morton, Simons-Morton, Parcel, & Bunker, 1988), 3) participation in health promotion planning (i.e., it advocates for a participatory-based design), and 4) ethical practice of health promotion. These principles fit well within the aims and values of this PhD, and this was the

main reason to use IM over other frameworks, such as the Behaviour Change Wheel (S. Michie, Atkins, & West, 2014; S. Michie, van Stralen, & West, 2011). As with any other approach, IM has limitations: IM is a complex, time consuming and expensive process (Kok, Lo, Peters, & Ruiter, 2011; G. Kok et al., 2011; Lloyd, Logan, Greaves, & Wyatt, 2011; Oosterom-Calo, Te Velde, Stut, & Brug, 2015).

Table 1

Steps of Intervention Mapping

	Step	Tasks
Evaluation	Step I. Logic Model of the Problem	• Establish and work with a planning group • Conduct a needs assessment and create a Logic Model of the Problem • Describe the context for the programme • State the programme goals
	Step II. Programme Outcomes and Objectives – Logic Model of Change	• State expected outcomes • Specify performance objectives • Select determinants for outcomes • Construct matrices of change objectives • Create a Logic Model of Change
	Step III. Programme Design	• Generate themes, components, scope and sequence of the programme • Choose theory- and evidence-based change methods • Select or design practical applications to deliver change methods
	Step IV. Programme Production	• Refine the structure and organisation of the programme • Prepare plans for programme materials • Draft messages, materials and protocols • Pre-test, refine and produce materials
	Step V. Programme Implementation Plan	• Identify potential programme users • State outcomes and performance objectives for using the programme • Construct matrices of change objectives for using the programme • Design implementation interventions
	Step VI. Evaluation Plan	• Write effect and process evaluation questions • Develop indicators and measures for assessment • Specify the evaluation design • Complete the evaluation plan

Implementation

Note. From *Planning Health Promotion Programs: An Intervention Mapping Approach* (p. 13), by Bartholomew Eldredge et al., 2016, San Francisco, California: Jossey-Bass. Copyright [2016] by John Wiley & Sons, Inc. Adapted with permission (see Appendix 1).

The IM approach provides a step-by-step guide on developing health promotion programmes that consists of six steps. Each step includes several tasks (see Table 1). The general aims of each step are summarized below:

1. To conduct a needs assessment or problem analysis, identifying what, if anything, needs to be changed and for whom (Step I).
2. To create matrices of change objectives by combining (sub-)behaviours (performance objectives) with determinants, identifying which beliefs should be targeted by the intervention (Step II).
3. To select theory-based intervention methods that match the determinants into which the identified beliefs aggregate, and translate these into practical applications that satisfy the parameters for effectiveness of the selected methods (Step III).
4. To integrate methods and the practical applications into an organized program (Step IV).
5. To plan for adoption, implementation and sustainability of the program in real-life contexts (Step V).
6. To generate an evaluation plan to conduct effect and process evaluations (Step VI).

Due to the time constraints and financial limitations, this PhD includes Step I and Step II of the IM approach (see Table 1). Recommendations for the future design of the service are available in Chapter 9.

2.2.1.1. Step I. Conducting a Needs Assessment: a Logic Model of the Problem

Following the IM approach, the main aim of Step I was to develop a Logic Model of the Problem (see Figure 1). This model included the factors associated with the risk of sexual transmission of STIs and BBVs among WOST, and their impact on health outcomes and quality of life (see Chapter 6). Step I consisted of four tasks. These are detailed below:

2.2.1.1.1. Task I. Establishing and working with a planning group. A team of researchers was involved in this study. The principal investigator (PI) (LMP) was supervised by the other researchers in the team (HF, CD, JS, SC, JB). Both WOST and CPs were involved in the needs assessment and the development of initial ideas for the design of the sexual health service. Stakeholders, mental health professionals, nurses, social workers, and feedback from other researchers also informed this PhD research, especially during Study 2 (see page 22). They were informally

involved in designing the materials for the study (e.g., interview topic guides), and acted as gatekeepers to recruiting WOST and CPs. Meetings with an advisory group in London, composed by ex- and current alcohol and drug users informed the design and materials for Study 2.

2.2.1.1.2. Task II. Planning and conducting the needs assessment. As already mentioned, one of the main aims of Step I was to plan the needs assessment and to develop a Logic Model of the Problem (see Figure 1) (Bartholomew Eldredge et al., 2016; Gilmore & Campbell, 2005). The Logic Model of the Problem is a conceptual model that includes the factors associated with the risk of sexual transmission of STIs and BBVs among WOST. The PRECEDE model (Green & Kreuter, 1991, 1999, 2005) was used as a framework to develop the Logic Model of the Problem. The PRECEDE model identifies the factors associated with a health problem at multiple ecological levels, accounting for determinants of health, individual and socio-structural factors, the definition and characteristics of health outcomes, and the impact on quality of life. This involves identifying and exploring the factors associated with a health problem (e.g., incidence of STIs and BBVs), often among a certain population group (e.g., WOST). These are then related to quality of life. The Logic Model of the Problem for this study was developed using the data from Study 1, Study 2 and previous literature. All data were revised and merged in order to create the model (see Chapter 6).

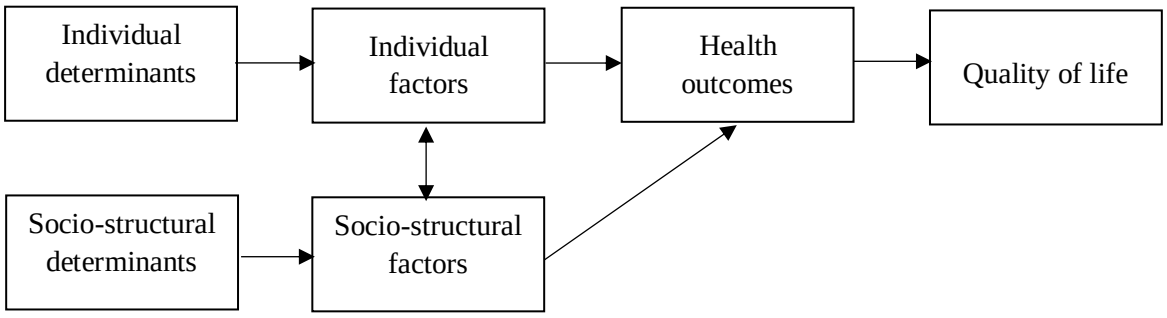


Figure 1. Logic Model of the Problem. From Planning Health Promotion Programs: An Intervention Mapping Approach (p. 227), by Bartholomew Eldredge et al., 2016, San Francisco, California: Jossey-Bass. Copyright [2016] by John Wiley & Sons, Inc. Adapted with permission (see Appendix 1).

2.2.1.1.2.1. Study 1. Factors associated with sexual risks and risk of STIs, HIV and other blood-borne viruses among women using heroin and other drugs: A systematic literature review

Study 1 was a systematic literature review that aimed to review the literature on the risks of sexual transmission of STIs and BBVs among WHOD. This study was carried out from May 2016 until July 2017. Several sources were used to design this study (Centre for Review and Dissemination, 2016; Denyer & Tranfield, 2009; Lacey, Jesson, & Matheson, 2011; Moher, Liberati, Tetzlaff,

Altman, & The PRISMA Group, 2009; Torgerson, 2003), including meetings with librarians at the University of Bath, academics and other PhD students with experience conducting systematic literature reviews. A set of criteria was developed to guide the screening and include/exclude publications (see Table 2).

Table 2

Inclusion and Exclusion Criteria of Publications

Inclusion Criteria	Exclusion Criteria
1. English language	1. Other language than English
2. Published between 1995 and end of June 2016	2. Reviews (including books)
3. Including female participants	3. Including male participants only
4. Heterosexual or women who have sex with women participants	4. Including non-heroin drug use only
5. Participants are at least 18 years old	5. Focusing on the consequences of sexual risks only
6. Including heroin use, or heroin use in combination with other drugs	6. Focusing on the physiology, chemistry, pharmacology or biology of sexually transmitted infections or blood-borne viruses
7. Qualitative or quantitative studies	7. Studies including epidemiological data only
8. Including factors associated with sexual risks	8. Studies evaluating a service only (e.g. harm reduction services, needle exchange programmes)
	9. Focusing on the effectiveness of an intervention/treatment only
	10. Focusing on drug needle (or paraphernalia) sharing, or harm reduction strategies only
	11. Studies on treatment adherence only

Study 1 was divided in six phases:

Phase I. Data searches (May 2016 – June 2016). Systematic searches were carried out in five databases: PubMed, EMBASE, PsycNET, Web of Science and Scopus. PsycEXTRA (within PsycNET) was used to search for grey literature. Search terms included were "women", "sexual behavior*", "heroin use*" and "HIV". Publications had to be written in English and dated from 1995 until the end of June of 2016. All publications were saved in an EndNote file. The number of records identified was 12,135.

Phase II. Title screening (July 2016). The titles of all publications were screened based on the inclusion/exclusion criteria (see Table 2). Titles of 11,923 publications were screened.

Phase III. Abstract Screening (July 2016 – August 2016). The abstracts of all titles included after Phase II were screened based on the inclusion/exclusion criteria (see Table 2). The abstracts of 971 records were screened.

Phase IV. Full-text screening (August – October 2016). Full-text screening was conducted for all titles included after Phase III, using the inclusion/exclusion criteria (see Table 2). Publications included after Step IV were as well screened. A total of 321 publications were screened in Phase IV. All references of included publications were screened. One publication was added at this stage. Thirty publications were included in this systematic literature review after full-text screening.

Phase V. Quality assessment (November 2016 – December 2016). The quality of all included titles were assessed using the Standard Quality Assessment Criteria for Evaluating Primary Research Papers from a Variety of Fields (Kmet, Lee, & Cook, 2004). PRISMA 2009 guidelines (Moher et al., 2009) were used to assess the quality of the systematic literature review. No publications were excluded for quality reasons. This systematic literature review was registered with PROSPERO International prospective register of systematic reviews (PROSPERO 2016: CRD42016039842).

Phase VI. Data extraction & analysis (January 2017 – July 2017). Data from the 30 publications were extracted and analysed according to the aims of this study and the inclusion/exclusion criteria (see Table 2).

Searches, screening of all titles, qualitative assessment, data extraction and analysis, and research dissemination were carried out by the PI (LMP). Two supervisors (CD, HF) screened 10% of the titles for study quality purposes. Any disagreements on the inclusion and exclusion of papers were

discussed. Cohen's Kappa calculations indicated a moderate and acceptable degree of agreement (k = .5) (Altman, 1991).

This study was published online in the peer-reviewed journal *AIDS & Behavior* on 2nd of August 2018. See publication in Chapter 3.

2.2.1.1.2.2. Study 2. Design of a sexual health service for women on opioid substitution treatment in community pharmacy

Study 2 was a qualitative cross-sectional study, comprised by two phases. In Phase I, semi-structured face-to-face interviews were conducted with 20 WOST and 14 CPs. In Phase II, three focus groups were organised: two with WOST (N=4) and another one with CPs (N=3). Data on demographics, drug use and sexual health were collected from all participants using a non-standardised questionnaire. This study was conducted in the areas of Bath, Midsomer Norton and Bristol (England, United Kingdom). Recruitment for Study 2 started on the 18th of August of 2016. Data analyses finalised in April 2018. The PI designed this study, supervised by the research team. She also recruited, collected and analysed all data.

Participant recruitment

Two groups of participants were recruited for Study 2: WOST and CPs. In the first stage of the study, participants were recruited to take part in semi-structured face-to-face interviews with the PI. In the second stage, participants were asked to take part in a focus group. The inclusion and exclusion criteria for WOST and CPs are presented in Table 3 and Table 4 respectively.

Table 3

Inclusion and Exclusion Criteria of Women on Opioid Substitution Treatment

Inclusion criteria	Exclusion criteria
Female sex	Male sex
Be at least 18 years old or older	Be under 18 years old
Be currently receiving, or have previously received, opioid substitution treatment	Not having received opioid substitution treatment
Be able to understand and provide consent	Not able to provide consent

Be able to communicate fluently in English	Not being able to communicate fluently in English

Table 4

Inclusion and Exclusion Criteria of Community Pharmacists

Inclusion criteria	**Exclusion criteria**
Be a community pharmacist and have worked in community pharmacy	Be a trainee pharmacist
To be currently providing, or have previously provided, opioid substitution treatment	Not having delivered (ever) opioid substitution treatment
Be able to provide consent	Not able to provide consent
Be able to communicate fluently in English	Not able to communicate fluently in English

After the interviews, all participants were asked whether they would like to be contacted in the future to know more about the study and potentially take part in the focus groups. Contact details (phone numbers and email addresses) were retained for all CP. Only a few WOST gave their contact details (phone numbers). This made it challenging to contact WOST directly.

Recruitment strategies were different for the two groups of participants. Oral and written information (see Appendices 2 and 3) about the study was provided to all potential participants, to introduce the study and allow participants to make an informed decision on whether they wanted to participate in the study. All potential participants were given the space and time to ask questions and express concerns regarding their participation. Oral and written consent was requested from all participants before taking part in the study (see Appendices 4 and 5).

Recruiting WOST. Recruitment was venue-based, a useful sampling method for recruiting hard-to-reach populations (Muhib et al., 2001; Raymond et al., 2010; C. Thomas & Freisthler, 2016; Weir et al., 2012). Recruitment was mostly opportunistic, although services' staff helped identifying women for the study. Recruitment of WOST was carried out in four drug services and a service for sex workers. Two drug services were located in Bath, one in Midsomer Norton and the forth one in Bristol. The service for sex workers was located in Bristol. Recruitment efforts were also placed in sexual health services in Bath although no participants were recruited from these services.

Once ethical approvals were received (see Ethical Considerations, page 37; see Appendices 6 and 7), Clinical Commissioning Groups (CCG) in Bath and Bristol were contacted. Also, the Avon and Wiltshire Mental Health Partnership (AWP) was approached to assist with recruitment procedures. Commissioners at the local CCGs provided the contact details of the main sexual health services and drug services in the area, and also of a service for sex workers[6]. Meetings with drug services' teams and commissioning groups were organised to give information about the study. Once drug services gave their approval to recruit participants and run the study in their premises, participant recruitment started. Communication with the service for sex workers and sexual health services was over email and phone calls. Recruitment posters (see Appendix 8) were placed in sexual health services and follow-up calls were made to get feedback about the recruitment progress. No participants were recruited in sexual health services due to the challenges to identify WOST in services for the general population. One participant was recruited at the service for sex workers.

An application was made to use the "Everyone included" method by AWP. Through using this system, AWP service users got routinely informed about relevant research opportunities by post, unless an individual expresses a preference not to receive information in this way. When using this method, the recruitment process was slightly different. First, AWP identified potential participants from drug and sexual health services and sent an introduction letter. If the service user was interested in obtaining more information about the study, AWP sent a "Research Opportunity Letter" to invite them into the study. Those service users still interested in participating then contacted the PI, in order to obtain further information about the study and potentially participating. No participants were recruited using this method.

Drug services in Bath and Midsomer Norton. Drug services' staff served as gatekeepers to recruiting participants. On some occasions, staff identified eligible women for the study and gave information to them. If women expressed interest in the study, staff would inform the PI. She then attended the drug service on the day and time that the potential participant had her next appointment at the drug service. On other occasions, the PI spent entire days in the drug services. First, staff identified WOST. Then the PI introduced the study to women. Recruitment posters (see Appendix 8) and participant information sheets (see Appendix 2) were available at waiting and consultation rooms in the drug services.

Service for sex workers. After receiving approval from the service, the PI attended the service's drop-in three times. During these visits the PI interacted with service users attending the drop-in and gave information about the study to some of them. One woman agreed to take part in the

[6] Even though the term "transactional sex" is used in this thesis (see Chapter 1, page 7), this service was for any woman exchanging sex for money and/or goods. Thus, the term "sex workers" is used here in relation to this service.

study. The interview took part in the service. After the third visit to the drop-in, the PI considered that it was too intrusive for women attending the service to be given information and asked to take part in the study. This service was the only place where women attending felt safe, so it seemed unethical to "ask for omething" from them in that context. Participants were no longer recruited from this service. The research team and service' staff agreed with this decision.

Drug service in Bristol. Recruitment for the focus groups took place in a drug service in Bristol. The service staff disseminated information (oral and written) about the study (see Appendix 2) to potential participants. Three sessions for the focus groups were arranged at the drug service right after a women group session. No participants took part in the first session. One participant attended the second session. Despite not being a focus group *per se*, data were still retained. The reasons for this were: ethical considerations and the value of the data. The third session was successful as three women attended, so a focus group was run.

Overall, recruiting WOST was a challenge. An approximate of 75 WOST were approached to participate in the study by the PI. It is unknown the exact number of women who were informed about the study by the services' staff and AWP. Even just considering the 75 women directly approached by the PI, nearly ¾ of women declined (N = 55; 73,3%). The number of women who refused to take in the study is however considerably higher. The potential barriers to recruitment identified were: (1) lack of time and other priorities; (2) unwillingness to discuss sexual health-related topics (e.g., violence); (3) fear of stigma; (4) chaotic lifestyle; (5) being intoxicated at the time of recruitment; (6) feeling physically and/or emotionally unwell at the time of recruitment; and (5) distrust in the research/researcher and/or services' staff (e.g., breach of confidentiality or anonymity).

Recruiting CPs. First, invitation letters (see Appendix 9) were sent to superintendent pharmacists, pharmacy owners and/or pharmacy managers of community pharmacies in the areas of Bath and North East Somerset and Bristol. The purpose of these letters was to give information about the study and to request permission to contacting and recruiting CPs working in their pharmacies. Where permission was not granted by pharmacy leaders, CPs were still allowed to participate outside of working hours and in an individual capacity. Pharmacy leaders did not help to identify individual CPs eligible for the study. Platforms such as Local Pharmaceutical Committees, the Western Pharmacy Forum, the Pharmaceutical Services Negotiating Committee, and Twitter were used to advertise the study and recruit CPs (see Appendix 10). No participants were recruited through these platforms.

As with recruiting WOST, the CCGs facilitated the contact with community pharmacies. Staff at drug services were also useful in providing the contacts of CPs. On the other hand, the PI searched community pharmacies in the area online and created a list of potential community pharmacies for

recruitment. Recruitment packs were posted by mail to the community pharmacies identified. These packs contained an invitation letter (see Appendix 9), the participant information sheet (see Appendix 3) and contact details of the research team. No CPs responded to these letters. Follow-up phone calls were made to contact CPs directly. Further follow-up calls and emails were sent to those CPs who expressed interest in the study. If still interested in taking part, a suitable time and place was agreed to carry out the interview. All participants were asked whether they would like to be contacted to take part in the focus group. Those interested were reached via email and phone to take part in the focus group.

Recruiting CPs was not as challenging as for WOST. The PI contacted 94 community pharmacies. Fourteen CPs agreed to the interviews (refusal rate 85,1%). Even though the refusal rate was still high among CPs, the time invested in recruiting CPs was considerably lower compared to the recruitment of WOST. Three CPs who had already taken part in the individual interviews participated in the focus group. Barriers to recruiting CPs identified were: 1) lack of time and other priorities; and 2) lack of interest in the study/research.

Procedure and data collection

Data collection methods for this study were semi-structured interviews (Phase I) and focus groups (Phase II). All participants were asked to complete a brief non-validated questionnaire after taking part in an interview (Phase I) or focus group (Phase II). There were two versions of the questionnaire, one for WOST (see Appendix 11) and a second one for CPs (see Appendix 12). The questionnaire for WOST included questions on demographics, drug use (and opioid treatment), and sexual and reproductive health history. The version for CPs included questions on demographics, the community pharmacy they worked at, and their job role as providers of opioid treatment. These data were collected to describe the sample for Study 2. The design of the questionnaire was based on previous literature, and inputs from the research team and other researchers that were external to this study.

Oral and written consent (see Appendices 4 and 5) was required from all participants before taking part in the study. The PI made sure that all participants made informed decisions by providing oral and written information about the study timely. The opportunity to ask questions and express concerns was given to all participants before they agreed to take part in the study. The interviews and focus groups were audio recorded, with the consent of the participants. Twenty-eight interviews were transcribed verbatim by the PI, and six interviews by employed transcribers at the University of Bath. Focus groups were transcribed by student volunteers and employed transcribers at the University of Bath. Oral and written debriefs (see Appendices 13-15), and a £10 LovetoShop voucher were given to

all participants after taking part in the study. Refreshments were available during the interviews and focus groups.

Phase I. Semi-structured interviews. Thirty-four individual face-to-face semi-structured interviews were conducted [(N=20); CP (N=14)] by the PI. Two different topic guides (one for WOST, and another for CPs) were developed for the purposes of this study. Previous literature, the research team's expertise in the area, and inputs from an advisory group, stakeholders, and drug services' staff (mental health professionals, nurses, social workers) informed the development of the topic guide for WOST. The topic guide for CPs was devised based on previous literature, inputs from the research team and feedback from other researchers in the area. See Appendices 16 and 17 for interview topic guides.

Interviews with WOST. The aims of the interviews with WOST (N=20) were to explore and understand 1) the factors associated with the risk of sexual transmission of STIs and BBVs; 2) women's knowledge, risk perceptions, beliefs and attitudes towards STIs and BBVs; 3) women's experiences in community pharmacy in relation to their opioid substitution treatment; 4) women's relationships and attitudes towards CPs; 5) women's acceptability and views on a sexual health service in community pharmacy alongside their opioid treatment; and 6) women's ideas for the sexual health service.

The interviews were conducted by the PI over a period of seven months (October 2016 – April 2017). The interviews with WOST lasted between 25 and 80 minutes. Nineteen interviews took place in drug services and one in the service for sex workers.

Interviews with CPs. The aims of the interviews with CPs (N=14) were to explore and understand 1) pharmacists' experiences providing opioid treatment; 2) pharmacists' relationships and attitudes towards WOST; 3) pharmacists' views on the provision of health promotion services; 4) pharmacists' perceived factors associated with the risk of sexual transmission of STIs and BBVs among WOST; 5) pharmacists' acceptability and views on a sexual health service in community pharmacy for WOST; 6) pharmacists' ideas for the sexual health service; and 7) pharmacists' training.

The PI conducted the interviews with CPs during a period of seven months (September 2016 – March 2017). The duration of the interviews with CPs ranged between 30 and 90 minutes. Seven interviews were conducted at the University of Bath, six at the community pharmacy where the participant worked, and one at a café.

Phase II. Focus groups. The main aims of running the focus groups was to further explore and understand 1) the factors associated with the risk of sexual transmission of STIs and BBVs among WOST; 2) the acceptability of a sexual health service for WOST in community pharmacy; 3) potential

barriers for the design and implementation of the sexual health service; and 4) ideas for the service design. Also, focus groups were a method for respondent validation (see page 35). The discussion was initiated with both groups by informally presenting the data from the interviews of WOST (in focus groups with WOST) and CPs (in focus groups with CPs), using power point presentations. Topic guides were devised based on the data from the interviews (see Appendices 18 and 19).

Separate focus groups with WOST and CPs were run. Two focus groups were run with WOST. Only one participant attended the first session; data were still retained. Three WOST took part in a second session. One focus group was run with CPs (N=3). These CPs had already participated in the interviews. The sessions for the focus groups with WOST were on 13th, 20th and 27th of September 2017, and the focus group with CPs was on the 21st of September 2018. They took place in a drug service in Bristol and at the University of Bath, respectively.

Data Analyses

Semi-structured interviews. The interviews' data were analysed using Framework Analysis (FA) (Barnard, 2010; Ritchie, Lewis, McNaughton Nicholls, & Ormston, 2014; Ritchie & Spencer, 1994) by the PI and managed using NVivo 10 software. The FA method was developed by the UK National Centre for Social Research and aims to classify and organise data according to key themes, to develop a hierarchical thematic framework (Ritchie & Spencer, 1994). FA is a case and theme-based approach as it creates matrices combining data from individual participants and themes across participants. In addition, it identifies main themes and themes subdivided by related subtopics in order to offer an explanatory analysis (Barnard, 2010). Contrarily to other methodological approaches, FA manages summarised data rather than "raw" or original data. However, each summary retains the link to the original data, and the language used by the participants.

The key features of FA are 1) *grounded or generative*, as it is driven by the original views and interpretations of the participants; 2) *dynamic*, as it is a flexible and iterative process; 3) *systematic*, as it is a methodical method of analysis; 4) *comprehensive*, as it provides a full review of the data; 5) *enables easy retrieval*, as it allows researchers to retrieve and access the original textual data; 6) *allows between- and within-case analysis*, as it enables an analysis of the data for each participant and across participants; and 7) *accessible to others*, as the analysis is transparent enough so that it can be revised by other researchers (Ritchie & Spencer, 1994).

As with all qualitative analysis methods, FA has advantages and disadvantages. FA is a systematic, comprehensive and transparent method that focuses on ordering data aiding question-focussed analyses. It also provides the opportunity to identify relevant data from each participant, and also across participants. It identifies relevant themes and sub-themes. In this way, FA encourages the

display of diversity and avoidance of bias. Among the limitations, using FA is a highly time consuming and a laborious task. Moreover, it is important to take a critical and reflexive perspective in order to focus on the outcome instead of the process of FA (Barnard, 2010; Ritchie et al., 2014; Ritchie & Spencer, 1994). FA was used because it is a structured, but dynamic and flexible method. FA is not aligned with a particular theoretical and/or epistemological approach, which allows for a bottom-up (although deductive) analysis of the data, and potentially a more in-depth and unbiased data analysis (Gale, Heath, Cameron, Rashid, & Redwood, 2013).

Other methods of analysis were considered, such as or interpretative phenomenological analysis (IPA) (J. A. Smith, 1996) or thematic analysis (TA) (Braun & Clarke, 2006). IPA was considered as it could offer a deep exploration of the experiences of both WOST and CP, based on the participants' particular experiences and interpretation. Despite using IPA could have been an option for this study, FA was deemed more suitable due to its focus on intervention development. Also, IPA is commonly used in a homogeneous sample (Shinebourne, 2011; J. A. Smith, 1996; J. A. Smith, Flowers, & Larkin, 2009; Willig, 2013). Even though participants in this study pertained to specific groups (e.g., WOST) and had common experiences, there were still a heterogeneous group (e.g., some women engaged in transactional sex while others did not). Also, IPA has been criticised for being ambiguous and lacking standardisation (Tuffour, 2017), which may compromise transparency in the analysis process. In contrast, FA offers clarity and is a systematic but flexible method of analysis (Barnard, 2010; Ritchie et al., 2014; Ritchie & Spencer, 1994). On the other hand, TA is one of the most used methods for analysing qualitative data (Braun & Clarke, 2006). It is a useful approach to identify patterns (themes) within a dataset in order to describe experience. TA is a flexible and easy-to-grasp method. However, it does not provide the in-depth analysis that was required for this piece of research. Besides and as for IPA, there have been concerns about the transparency and rigour of TA (Holloway & Todres, 2003; Nowell, Norris, White, & Moules, 2017). For the reasons stated, FA was chosen over other methods as the approach to analyse the semi-structured interviews in this PhD research.

There are five stages to FA (Gale et al., 2013; Parkinson, Eatough, Holmes, Stapley, & Midgley, 2015; Ritchie & Spencer, 1994; J. Smith & Firth, 2011; Srivastava & Thomson, 2009):

Stage 1. Familiarisation with the data. During and after the transcription process, the PI was familiarised with the content of the data, and gained an overview of the variety of views from the participants. Familiarisation with the data involved listening to the audio recordings, and writing and reading transcripts and research notes. Key ideas and recurrent themes were listed as part of Stage 1.

Stage 2. Identifying a thematic framework. The data from all interviews was coded by the PI, using NVivo 10 software. Coding was done using NVivo software (see Figure 2 for an example of

coding). Codes led to creating initial themes and subthemes to develop a thematic framework. Identifying this framework was also driven by the study aims and research questions. Stage 2 was not a mechanical or automatic procedure. Instead, it was an iterative process involving critical, analytical and holistic thinking. The thematic framework was modified several times, based on discussions with the supervisory team and after re-visiting the data. The process of refining the thematic framework ended when no more codes of themes/subthemes were generated or merged. The final thematic framework of WOST's interviews included seven themes and 35 subthemes. The thematic framework of CPs' interviews was comprised by eight themes and 21 subthemes.

Stage 3. Indexing. Codes were "indexed" within themes and subthemes of the thematic framework. This process was done offline as it was more manageable given the high number of codes (see Figure 3). Original data was already linked to each code on the NVivo 10 software, so that original quotes from participants could be easily accessed in relation to codes and eventually themes and subthemes.

Stage 4. Charting. Data were organised in charts, according to the themes and subthemes of the thematic framework. Seven charts were created for the women data, and eight for the pharmacists' data. Charts were developed to include the original data (quotes) and the analysis/interpretation of the data (summary) for each and all participants. The interpretation of the data at this stage was focused on each participant and subtheme. As for previous stages of FA, charts were refined based on discussions with the supervisory team and after re-visiting interview data. See Figure 4 for an example of charting.

Stage 5. Mapping and interpretation. Once all data was chartered, key characteristics of the data were mapped and interpreted across participants. Summarised data from each participant was revised and merged into a document, to synthesise and then interpret the data across participants for each theme and subtheme. Links to participants were maintained so that original data could be easily accessed. See Figure 5 for an example of this process. A final framework of themes and sub-themes was developed through interpreting the data. These are presented in Chapter 4 and 5 of this PhD thesis.

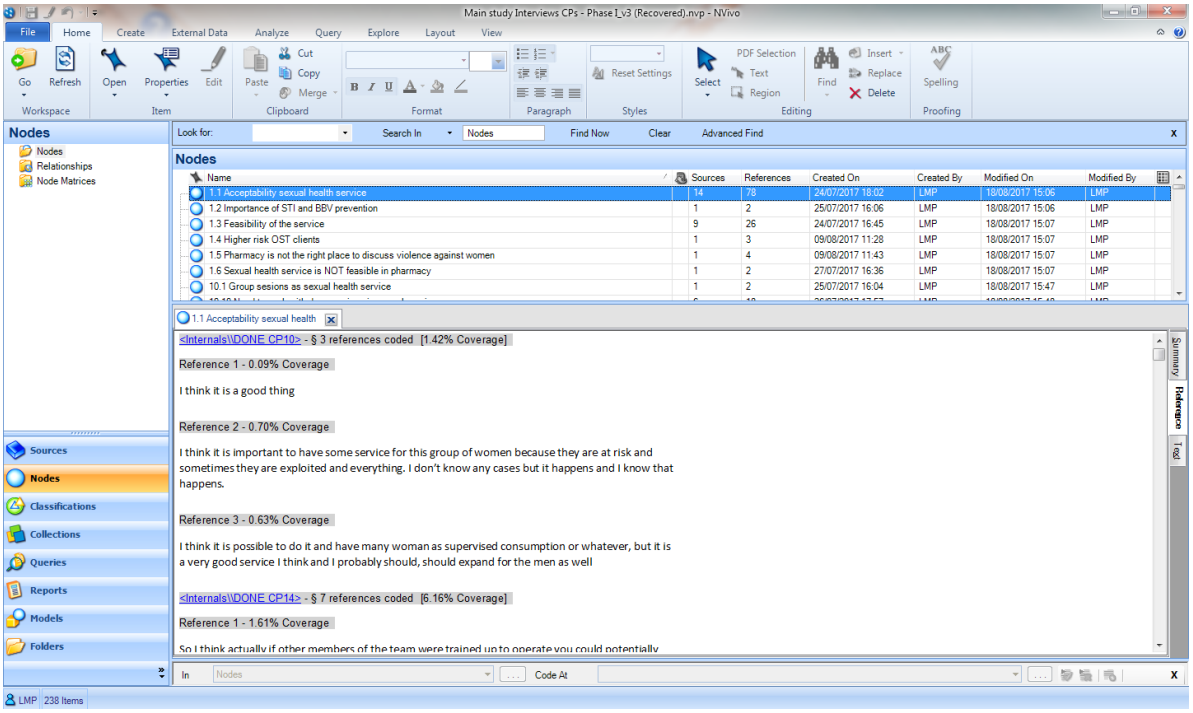


Figure 2. Example of Interview Coding using NVivo 10 Software.

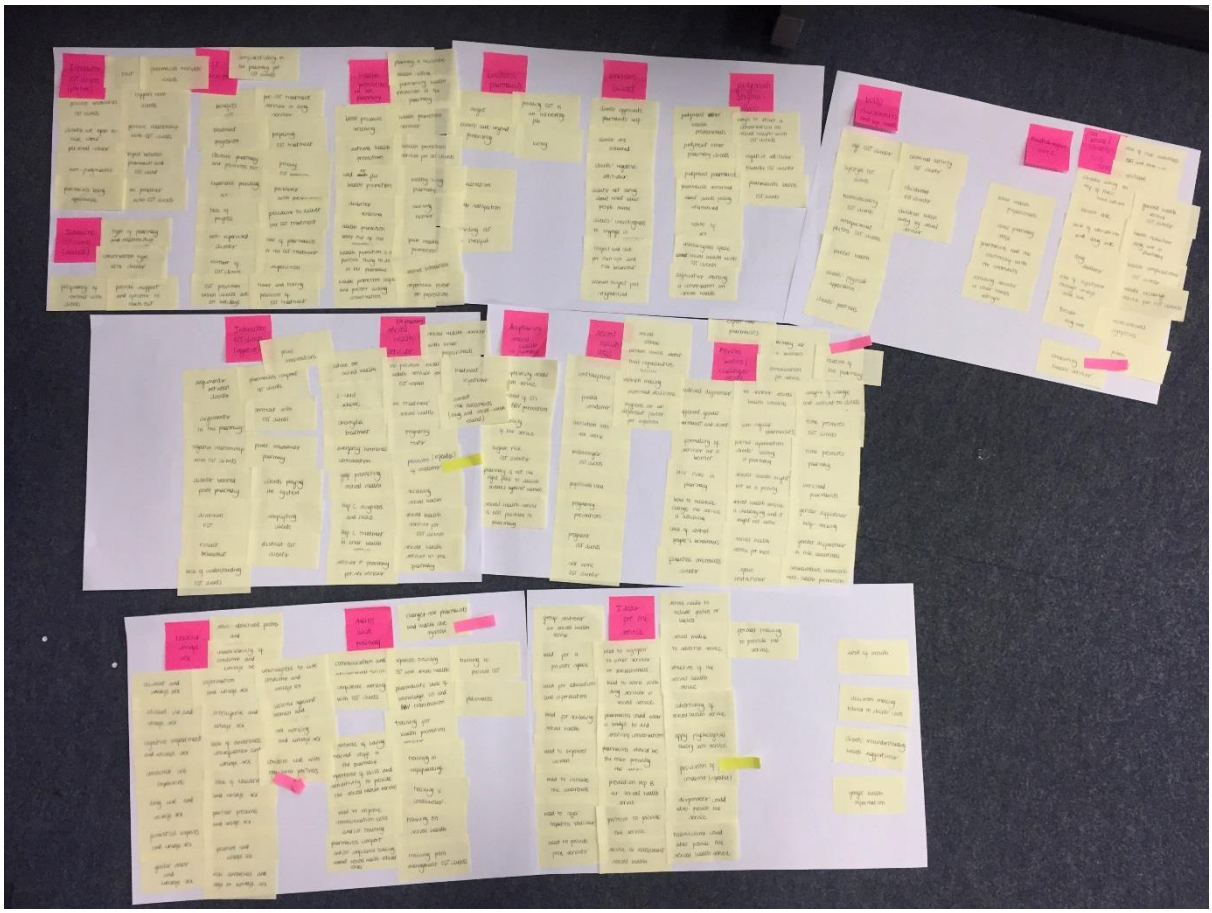


Figure 3. Indexing Process of Interviews with WOST.

Respondent	CHART 1. PHARMACY SERVICES			
	1.1 Services in pharmacy		1.2 Interactions with pharmacy staff and other clients	
	Quotes	Summary	Quotes	Summary
WOST 1	WRO 1.1 I'm never asked anything really	She is not actively asked for anything related to her health directly in the pharmacy	WRO 1.1 Yeah, I've... the pharmacists has always been fine. WRO 1.2 It's just some pharmacists are like, some of the chemists I've been to the pharmacists are just like more friendly and it's easier speaking to them, and everyone that I've gone to is like I wouldn't been comfortable speaking to them about it. It depends on the person really, I think WRO 1.3 Cause some people are more friendly and it's just easier speaking to them WRO 1.4 I think that some people are more like... hmm... friendly, you don't feel judged by them, but I think I've, certain chemists I've been to they just look at you all up like a drug users basically and they don't have time like... Hmm... certain chemists you are not allowed in there, you've got to be there an hour and a half before it closes, after it opens you've got to wait for ages before everyone else gets served and it's just rude, to everyone cause they're getting their meth, so... it's just drug use... But yeah, I think that makes a difference WRO 1.5 Yeah, I think the do. Not all of them, some of them are really good, but I think a lot of them do, cause I think they just look at you like... drug, like druggies WRO 1.6 I think that I've been to four different chemists and one of them, the pharmacists was really nice, really friendly and it was nice speaking to him, but the other... (laughs) WRO 1.7 Well, the one that was the nice one he'd sometimes ask if there are any problems, especially when I went to that staff with, when he beat me up and that, cause he was seeing me every day so he was obviously seeing things, the bruises and that so he was quite helpful. And then after it happened he asked if I didn't want him to be in the same chemist and go to another chemist and things like that... WRO 1.8 Yeah, I think that some of them... are quite rude, but not all of them WRO 1.9 I just go in and out to be honest. I try to hide my face so that nobody sees me and that (giggles)	Whether women feel judged and stigmatised by the pharmacist has a huge impact on whether women are going to be more or less comfortable having a conversation on sexual health. Some pharmacists are more friendly and less judgmental than others. Other pharmacists are judgmental and treat OST users differently (looking down on them). She has had positive and negative experiences with pharmacists. One particular pharmacist was really good and he picked up on physical abuse that she was experiencing and tried to help her. She is ashamed when she goes into the pharmacy as she does not want anyone to recognise her, so she tries to hide her face

Figure 4. Sample Chart using Framework Analysis.

CP 8. Judgment, stigma and taboo

8.1 Sex/Sexual health

- Sex/sexual health as sensitive topics (1-14)
- Difficult to initiate conversation on sex/sexual health (1, 2, 4, 5, 6, 7, 8, 9, 12, 13, 14
  - Need for skills and training to do so (1, 4, 6, 9
    - Maybe he does not have them (4
    - Educate counter staff (6
    - As for any other client. No difference talking to OST clients than other clients (9
  - Tricky when short time consultations (1, 6
  - Tricky when work pressures (6
  - Easier if prompt (clients looking at info sexual health; clients going to the pharmacy for EHC) (1, 5, 6, 7, 8, 9, 12, 13
    - If no prompts, will not initiate conversation (5
    - Have a poster in the pharmacy then (6
    - Have cards that clients can show to get condoms (7
    - Pharmacists could wear a badge to show that they can deliver service (7
    - Prompt could be a questionnaire that the clients fill in at home and bring back. If any risky aspects (e.g. sex work), then discuss. Questionnaire not necessarily on sexual health only (9
      - They will not be honest if they do not want to be honest (9

All pharmacists made comments about sex and sexual health being sensitive topics (1-14).

Most pharmacists thought that it is difficult to initiate a conversation on sexual health within the pharmacy (1, 2, 4, 5, 6, 7, 8, 9, 12, 13, 14). There is the need for skills and training in order to do so (1, 4, 6, 9), as they may not have them (4). Important to educate the counter staff as well (6). This conversation is difficult as for any other client, not only with OST clients (9). It is tricky to have the conversation because of the short time of the consultations (1, 6) and the work pressures (6).

Figure 5. Example of Mapping and Interpretation using Framework Analysis.

Focus groups. Data from the focus groups was analysed using QCA (H. F. Hsieh & Shannon, 2005; S. Wilkinson, 2015). QCA can be defined as a method for subjectively interpreting the content of text through systematically classifying codes, themes and patterns (Downe-Wamboldt, 1992). The reason to use QCA to analyse the focus groups was because these data were collected to inform the analysis of the interviews, and to explore the emergence of new ideas from participants and guide Step II. Thus, it was decided that a more in-depth qualitative analysis was not required. The method used was a *directed content analysis* (H. F. Hsieh & Shannon, 2005), a deductive approach to conceptually extend the findings from the interviews. First, the transcripts were read and initial notes and impressions were made. Based on the data from the interviews and the topic guides for the focus groups, frameworks of codes were developed for each participant group (see Figures 6 and 7). These frameworks were used to code the focus groups transcripts. Codes were grouped into categories, and themes were identified based on the interpretation of the data.

The directed content approach was adapted to allow for new themes to emerge from the data, and avoid restricting the findings to what was already originated from the interviews. Flexibility was also sought so that the use of QCA was suitable within the philosophy of research and approach to assessing quality already discussed in this chapter. Limitations to QCA were considered (H. F. Hsieh & Shannon, 2005; S. Wilkinson, 2015). The most significant limitation was related to the fact that data collection and analyses of the focus groups were based on the interviews' data. This may lead to bias, as the data from the focus groups may have been shaped by what was already presented to the participants. Bias may then be more likely, as the data from the focus groups may be more aligned to the interview data and may miss capturing other relevant data. Other methods of qualitative analysis such as FA or IPA were discarded as a more in-depth analysis and inductive was not sought for the analysis of the focus groups. This was as the focus groups aimed to complement interview findings.

Non-validated questionnaires. Data from the questionnaires was analysed using SPSS software. Descriptive statistics were used to describe the main characteristics of the research participants. These data were on demographics, drug use and opioid treatment, and sexual health.

Focus groups – Qualitative content analysis

Initial Framework WOST

Sexual risk of sexual transmission for STI/BBV is associated with:

1. The partner
    a. Type of relationship (& cheating partners)
    b. Opinion on condoms
    c. High risk partners
2. Personal situation
    a. Alcohol and drug use
    b. Finances
    c. Knowledge STI/HIV/Hepatitis
    d. Risk awareness
    e. Pregnancy
    f. Self-worth/self-esteem
3. Current and past sexual experiences
    a. Sex work (mainly if in withdrawal)
    b. Type of sex
    c. Sexual abuse
4. "Issues" with condoms
    a. Confidence negotiating condom use
    b. Embarrassment
    c. Availability
    d. Only male condoms?
    e. Expensive
5. Social situation
    a. Homelessness
    b. Gender roles
    c. Taboo sex
    d. Stigmatisation
    e. Violence
    f. Educational system
    g. Laws & policies

What is most important/needed in the pharmacy?

Figure 6. Framework for Qualitative Content Analysis of Focus Groups with WOST.

Focus groups – Qualitative content analysis

Initial Framework CP

Perceived factors associated with sexual transmission of STI/BBV among WOST:

1. Lack of education/information
2. Alcohol & drug use
3. Cognitive impairment and abilities
4. Lack of awareness
5. Finances (e.g., condoms are expensive) & priorities
6. Sex working
7. Number and characteristics of partners

Pharmacists' views on promoting (sexual) health in community pharmacy:

1. Acceptable and feasible
2. Beneficial to OST clients

Main ideas for the sexual health service:

1. Private (consultation room)
2. Consultation to educate/give info
3. The service needs to be structured (protocol)
4. Training for pharmacists (and other pharmacy staff)
5. Screening
6. Posters and leaflets
7. Condom supply
8. Health review/assessment (questionnaire? Part of MUR?)
9. Work with other professionals (signpost)
10. Pharmacists only should deliver the service
11. Pharmacist or technician should deliver the service
12. Any staff member with appropriate training should deliver the service

Main barriers and challenges to overcome:

1. Need to be commission/remuneration
2. Time constraints pharmacy/pharmacist
3. Workload pharmacists
4. Locum pharmacists
5. Male pharmacists/female clients
6. Time constraints clients
7. Difficulties starting "the conversation" (sensitive topic)
8. Negative experiences/rapport with clients
9. Negative/judgmental attitudes towards OST clients
10. Clients might think the service is not beneficial to them
11. Pharmacy is a business
12. Need for well-trained staff

Figure 7. Framework for Qualitative Content Analysis of Focus Groups with CPs.

Assessing the quality of qualitative research

Research quality has traditionally been measured in terms of reliability and validity. Reliability refers to the consistency in the measurement. Validity serves as an indicator that the concept that wants to be measured is indeed measured (Bryman, 2016). Whereas measuring validity may be acceptable for quantitative research, some qualitative researchers have challenged the idea that the quality of qualitative research should be assessed in the same terms (Bryman, 2016; Guba, 1985; Guba & Lincoln, 1994; Yardley, 2000, 2015, 2017). Alternative criteria for assessing quality in qualitative research have been proposed (Yardley, 2000, 2015, 2017). Sensitivity to context, commitment and rigour, coherence and transparency, and impact and importance are the core values for evaluating the quality of qualitative research according to this approach.

Sensitivity to context. Being sensitive to the context refers to understanding previous literature and theoretical approaches to designing and conducting qualitative research. This also allows to consider the socio-cultural context, participants' perspectives and ethical issues. This PhD research was sensitive to the context as it was supported by evidence and theory. It also emphasised the participants' contributions by formulating open-ended questions and adapting the research to each individual participant. Considering the socio-cultural context was also key in this study. There were numerous ethical implications that were carefully considered, not only to ensure the quality of the research but to protect the participants' wellbeing and rights (see page 37).

Commitment and rigour. Using appropriate and solid theoretical and methodological approaches (thorough data collection procedures and in-depth analyses) and staying up-to-date with relevant literature were ways to ensure commitment and rigour in this research. The commitment and rigour of this research can be reviewed throughout this thesis and publications from this research (see Appendix 20).

Coherence and transparency. Coherency refers to the consistency of the research as a whole. This was ensured by guaranteeing a good fit between the aims, methodology, theoretical approaches, data analyses and reporting of the findings. Transparency relates to the clarity and level of detail provided when describing research methods and presenting research findings. Transparency was attained by providing clear arguments and a detailed presentation of the methods and findings of this research. Reflexivity was also a key element for transparency as it allowed the PI to reflect on her experiences, especially of data collection and analysis (see page 42).

Impact and importance. Qualitative research should promote change and increase understandings of phenomena. It was expected that this study could identify research gaps and inform changes in policy and practice. Most importantly, it was part of the agenda of this PhD to draw the

attention towards social and health inequities experienced by a vulnerable group of women. Also, to highlight the limitations in accessing healthcare and lack of health services addressing the needs of this group of the population. This research was then set to have an impact and importance for research, policy and practice. To ensure impact and importance, the findings from this research have been presented at international and multidisciplinary conferences, and written for publication in peer-reviewed journals (see Appendix 20).

Triangulation, participant feedback, disconfirming case analysis, and paper trail were other main procedures to ensure the quality of qualitative research in this study (Yardley, 2000, 2015, 2017).

Triangulation. This PhD research used different methods for data collection (e.g. systematic literature review, semi-structured interviews and focus groups) and qualitative analysis (e.g. FA and directed QCA). This allowed different and more enriching perspectives to this research.

Participant feedback. Using participant feedback on the research was ensured by engaging participants in focus groups to comment on the analysis of the interviews. Running these focus groups offered the opportunity to explore potential contradictions or variances in the perspectives of different participants.

Disconfirming case analysis. Qualitative analyses involve finding patterns and themes in the data. However, it was also important to identify those cases that "did not fit" with these patterns and themes. Doing this broadened the scope of the analysis and offered a more consistent picture of the data. Disconfirming cases were acknowledged and reported where found in this PhD research.

Paper trail. A paper trail is available for this study. This means that there are clear links between final reports, data analyses and raw data. All the stages of this PhD research have been documented, including field notes and diagrams that have informed the decision-making processes.

Ethical Considerations

This study required ethical approvals from the National Health Service (NHS) in England (UK). Ethical approval was received on 17th of August 2016 (NHS Ethics: IRAS Id. 20570, REC 16/NW/0432) (see Appendices 6 and 7). The University of Bath sponsored the NHS ethics application. Two substantial (see Appendices 21 and 22) and two non-substantial (see Appendices 23 and 24) ethical amendments were submitted and approved throughout the research.

Informed consent. Informed consent was required from all participants. This was requested before the participants took part in the study, and after they read the participant information sheet (see

Appendices 2 and 3) and fully understood what the research involved. The PI made sure that all participants were able to consent, and they understood the potential risks and benefits related to consenting to participating in the study.

Oral and written consent was required and obtained from all participants in the study (see Appendices 4 and 5). Consent to audio record the interviews and focus groups was a requirement to participating in the study. Two participants requested assistance to read the research documents. These included the consent form and demographics questionnaire. In these cases, the PI read all research documents out loud while pointing out what she was reading. The PI then made sure that participants understood each statement and question.

Risk and harm assessment. Taking part in the study involved the discussion of sensitive topics (i.e., sexual health, drug use, transactional sex, homelessness, experiences of violence, and other related topics), and involved the inclusion of a vulnerable group (i.e., WOST). Discussing sensitive topics and the inclusion of WOST were necessary for the purposes of this research. In order to minimise these issues, information about the content of the interviews and focus groups, as well as the nature of the study, were provided prior to seeking consent and before starting the interviews and focus groups. These were run sensitively at all times.

There were no risks to confidentiality, no change of relationship with the healthcare professionals, and support was provided when needed. A protocol was prepared in case the PI had immediate concerns of harm, or a participant got distressed during their participation in the study. For WOST, the protocol included the PI seeking the participant's permission to contact their key worker and/or the service from which they were recruited from, if the PI had any immediate concerns that the participant may be at risk of harming herself or someone else. There were a few occasions in which the PI was concerned that the participant was being in a situation of GBV. In these cases, the PI asked participants whether they were getting support from their key workers or other professionals. All WOST who disclosed potential situations of GBV mentioned that they were already receiving support. Some WOST got distressed during their participation in the study. On such occasions, the PI gave participants the option to stop the interview or focus group. Even when participants agreed to continue, the interview and focus groups were stopped until the participant was ready to continue. External support was offered to all participants during their participation when appropriate (e.g., when disclosing experiences of GBV) and after their participation through debriefing forms (see Appendices 13-15) and verbal debriefs. Written debriefs included a list of local and free services for advice and support (e.g., for domestic violence and sexual health screening). This was particularly ensured for distressed participants, to make sure that they are able to seek support and/or advice if needed.

All participants were made aware of their right to withhold information that they were not willing to share, as well as withdrawing from the study or removing their data from the study at any time, prior to data analyses. Participants were given the opportunity to review the transcripts of their interviews and focus groups in which they participated, in order to improve the accuracy of the information given. None of the participants did however revise any of the transcripts. This was highlighted in the participant information sheet, and verbally explained before starting the interviews and focus groups.

All participants received a £10 Love-to-Shop voucher for every time that they participated in the study as a token of thanks. Refreshments were provided in all research sessions.

There were also risks of discussing sensitive topics for the PI. Appropriate support was made available when needed, though supervisory meetings and counselling services. Lone Working Policies from the University of Bath were applied when the PI collected data outside of the University premises and out of working hours.

Confidentiality and anonymity. Data confidentiality was carefully ensured. Contact details were only requested to those participants who were interested in participating in succeeding steps of the study. Physical identifiable data was securely stored at the University of Bath in a locked cabinet. Digital information was securely stored at the University of Bath Unidesk portal (X drive). Only the research team had access to the data.

Anonymised data were presented at seminars at the University of Bath, national and international conferences, and written in peer-reviewed journals and other reports (see Appendix 20). All data presented in this thesis has also been anonymised. Names used to refer to the participants are not the participants' real names.

2.2.1.1.2. Task III. Describing the context for the sexual health service. Step I of IM also includes an assessment of the community's assets, capacities and abilities (i.e., of the geographic, social and organisational groups of individuals who may participate in, or benefit from, the programme), to describe the context for the service. IM identifies four components to assess the context: 1) social environment, 2) information environment, 3) policy/practice environment, and 4) physical environment.

Assessing the social environment. The first component refers to factors that could support a health service (e.g., individual capacities, personal income, identity), and identifying the organisations and groups that could support the development and/or implementation of the service (e.g., social and health services).

Assessing the information environment. Assessing the information environment includes identifying the communication channels that could assist the development and/or implementation of a health service (e.g., community newspapers, television channels, radio stations, or social media).

Assessing the policy/practice environment. This component includes the assessment of policies and practices that could support or present barriers to the development and/or implementation of a health service. Policies and practices can be at different levels (i.e., national, state, community, organisation, home-based).

Assessing the physical environment. The assessment of the physical environment includes the aspects of the natural or built environment that could support or present barriers to the development and/or implementation of a health service (e.g., location of the community pharmacies within the community).

The assessment of the context for the sexual health service was driven by the data from Study 1 and Study 2 (evidence-based), and theory and previous literature (theory-based). It was also informed by informal meetings with professionals working in the areas of drug use and sexual health (e.g., health professionals or stakeholders). Not all components of the assessment were evaluated at the same level. The social environment was explored in Study 1 and Study 2. The policy/practice and physical environments were examined using previous evidence, meetings with professionals, and through the narratives of participants in Study 2. The informational environment was partially evaluated through mentions by participants in Study 2.

2.2.1.1.3. Task IV. Stating the goals of the sexual health service. Defining the priorities and goals of the sexual health service was the main aim of Task IV. The goals for the service are '*changes in health, quality of life and factors from the needs assessment'*, usually being health or quality of life the ultimate goals (Bartholomew Eldredge et al., 2016). Following the IM approach, these goals should include *what* will change, for *whom*, by *how much*, and over *what time*. However, because the philosophical and methodological nature of this study, some features of the sexual health service could not be determined in detail yet (e.g., by how much will the changes in behaviour and/or environment will be attained). Instead, the goals for the sexual health service were stated more generally with data available from Study 1, Study 2 and previous evidence. Stating the goals for the sexual health service was the starting point for Step II. See Chapter 8 for more details.

2.2.1.2. Step II. Programme Outcomes and Objectives

The main aim of Step II was to determine the programme outcomes and objectives. The Social-Ecological Framework (Bronfenbrenner, 1979, 1994; McLeroy et al., 1988; Stokols, 1992,

2003) was still at the core of Step II, as for Step I. Matrices of Change Objectives – a representation of the changes needed to influence changes in health outcomes – and a Logic Model of Change – a conceptual model representing the required changes to attain the goals of a health service – were developed at this stage. These specified the required changes at the individual and socio-structural levels.

Step II is comprised of five tasks:

2.2.1.2.1. Task I. Stating the outcomes at the individual and socio-structural levels. In the first task of Step II, outcomes at the individual and socio-structural levels were identified. These refer to the individual-level actions and socio-structural conditions that need to be attained to, ultimately, promote changes in health. Individual-level outcomes are often translated into behavioural terms such as risk reduction, health promotion, screening and early detection, adherence, and self-management actions. Socio-structural-level outcomes relate to interpersonal (e.g., social support), organisational (e.g., health care policies), community (e.g., health care accessibility), and societal (e.g., legislation) conditions (Bartholomew Eldredge et al., 2016).

Outcomes were selected based on findings from Study 1 and Study 2. Outcomes informed the identification of performance objectives, the selection of determinants of health, and the development of Matrices of Change Objectives and the Logic Model of Change.

2.2.1.2.2. Task II. Specifying performance objectives. Performance objectives were defined for each outcome identified in Task I (Step II). These were a more detailed description of individual-level and socio-structural components. Performance objectives were specified using data from Study 1 and Study 2, and based on previous literature.

2.2.1.2.3. Task III. Selecting determinants of health. Determinants at the individual level reside within the individuals. These usually include cognitive factors (e.g., knowledge, attitudes, beliefs, values, self-efficacy, and expectations) and capabilities (e.g., skills). Determinants at the socio-structural level refer to situations that are external to the individual, at the social (e.g., interpersonal violence) and structural level (e.g., policies). The IM approach exclusively focuses on selecting and changing personal determinants (individual-level). This is because it is considered that these determinants are the only ones that the individual (and health promotion programmes) have power or influence over to change (Bartholomew Eldredge et al., 2016). Environmental conditions (socio-structural-level) (e.g., social norms) are then considered *outcomes* rather than determinants. According to the IM approach, individual decisions and actions are at the core of changes at the socio-structural level (e.g., policy). Thus, individual-level changes are the ones that need to be attained.

For this research, social and structural changes were considered as the result of collective and not *just* individual behaviour. For instance, feminist movements have influenced changes in policy and human rights law worldwide (Carney, 2002; J. S. Peters & Wolper, 1995). This influence in global politics required from a cohesive social movement and would have not been possible through individual actions (Moscovici, 1976; Turner, 1991). Following the philosophical underpinnings and values of this research and the argument in this sub-section, determinants at the both the individual and socio-structural levels were considered equally for the development of the sexual health services.

Determinants were identified based on the needs assessment (Step I). This was based on the data of Study 1, Study 2, and evidence from the research literature. Once determinants were identified and selected, these were rated by their importance, in the context of the sexual health service. This is in terms of *importance* – the strength of association between the determinant and the behaviour – and *changeability* – how likely it is that the health programme will have an influence on changing the determinant. The rating of the determinants was mainly based on data from this PhD study.

2.2.1.2.4. Task IV. Constructing matrices of change objectives. Matrices of Change Objectives were developed (see Chapter 8) by cross-referencing performance objectives with determinants, and identifying change objectives. There were separate matrices for each participant group and intervention level (individual and socio-structural). The final step of Task IV consisted of writing change objectives in the matrices cells, according to the data already obtained and previous literature.

2.2.1.2.5. Task V. Creating a Logic Model of Change. The Logic Model of Change incorporates the pathways of the programmes potential impact. This model was constructed using the data from the needs assessment (Step I), as well as service outcomes, performance objectives, determinants and change objectives (Step II).

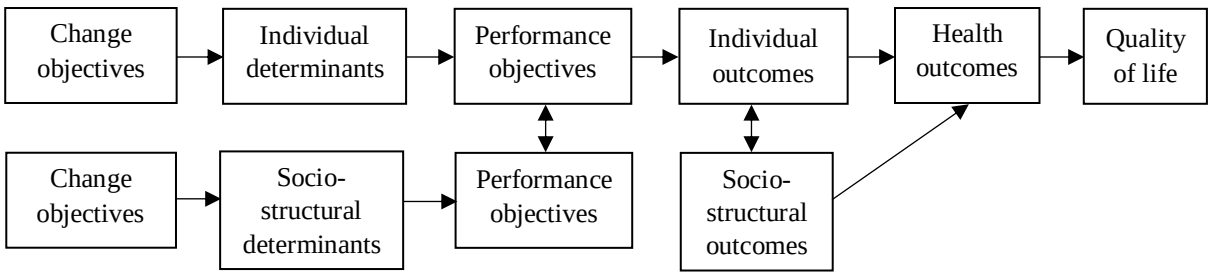


Figure 8. Logic Model of Change. From *Planning Health Promotion Programs: An Intervention Mapping Approach* (p. 285), by Bartholomew Eldredge et al., 2016, San Francisco, California: Jossey-Bass. Copyright [2016] by John Wiley & Sons, Inc. Adapted with permission (see Appendix 1).

More details on the development of the sexual health service are provided through this thesis and particularly in Chapters 7-9. The following chapters will include the findings from Study 1 (Chapter 3) and Study 2 (Chapters 4-8). The last chapter presents a general discussion of this PhD thesis (Chapter 9). See Appendix 20 for details on publications, conferences and bursaries of this PhD research.

2.3. Reflexivity

Reflexivity is key to ensure transparency and coherence in qualitative research (Yardley, 2000). It involves a self-critical introspective journey to better understand and disseminate research. For these reasons, a piece of reflexivity has been included in this research. This section has been written based on notes of reflections made by the PI throughout the research, especially during data collection.

> Conducting this research has been tough, and it has led to a breaking point in my life. It has been a journey into understanding the complexity of drug use, sexual health and women's issues. It has allowed me to develop my critical thinking and to see the world from a different lens. It has also meant a journey inwards, to explore my own personal past experiences in relation to the topics of this PhD. I have got to better understand the realities of social and health inequities. Particularly on gender inequities and gender-based violence, the impact of stigma in health, the social and cultural perspectives on sex and sexual health (…). This has an add-on to realising about the difficulties promoting health and preventing disease, as it is never *just* about health but social and structural issues.
>
> This PhD started becoming particularly challenging once I started interviewing women. Their narratives of violence, isolation, fear and anger had a great impact on me, and have had a great impact on my research as a result. I realised about the power of sharing emotionally painful experiences, and I felt (and feel) a great responsibility in being loyal to these narratives. The interviews were loaded with emotion, and reflected the great social and health inequities experienced by the women that I interviewed. This was even more apparent through the interviews with community pharmacists, as the social inequities, exclusion and invisibility of drug-using women became even more obvious. And so this is what my research has become: a means for letting women speak up about their experiences of drug use, violence, transactional sex, homelessness, stigma, sexual health, and more. It has become an attempt for feminist and human rights advocacy, a call for social justice.

For the last three and a half years I have learned to cope better with my emotions, even though it is still an everyday challenge. I have felt more empowered, partly because the dissemination of my findings allowed me to advocate for women. I could give them voice. In this process I have also worried about missing the aim of my research, which was developing a sexual health service in community pharmacies. I have had to revisit and shape my aims throughout the study, so that these reflected my data instead of limiting their potential. I have also revisited and considered my methodology several times. Especially because of the (mostly) exploratory and inductive nature of my PhD, I was worried about not having a strong consideration on theory. This, however, changed over time. I became more flexible in my thinking and allowed myself to explore (with rigour). Despite the initial anxiety, I also decided to shape my methodology to be truthful to my data and, most importantly, to my participants. I have also learned about the intricacies of qualitative data analysis and the importance of rigour and transparency in qualitative research.

At times throughout the development of my PhD I felt that the aims and objectives that I had set at the beginning, and some elements of the methodology (the use of Intervention Mapping and Framework Analysis in particular) were feeling like a straitjacket. I felt that the perspective that I had taken on the research was too short-sighted and it needed to be expanded. I felt naïve to think that it was all so simple that my research could be developed in a straight line. I learned from it as I did not allow my initial perspective to restrain my thinking and analysis. I realised that using approaches such as Intervention Mapping and Framework Analysis can be deceiving. I realised that they were tools that gave me some sense of control when I started navigating in doing research. It was scary and having a step-by-step approach to "tell me what to do" was very reassuring. These approaches soon became somehow limiting when I wanted to explore and expand my research beyond the limits that I had set at the beginning. I started to feel uncomfortable as they felt restricting and too prescriptive. This is definitely something to learn from, one of the many lessons of this PhD that I have taken on board for my future research. "Logic models", are they so "logic"? What is "logic" anyway? What is it not? Is experience and "logic" not subjective and individual to each of us? How can we then have a model that is "logic" and applicable to a group of people?

There have been some tensions, not only in my thinking but in this PhD thesis. One of them is related to focusing the research in community pharmacy, when I soon realised that the STI/BBV prevention priorities for WOST were not within the pharmacy setting. It still has its value, as there is *something* to be done in community pharmacy. But there

is so much more that I have been sceptical at times in relation to my research. I had to go from the "daydreaming" state at the start of the PhD, thinking that your research can change the world, to the more realistic "this-is-just-a-contribution" state. And that was fine but frustrating too.

I can also see now how sexual health goes beyond STI/BBV-related outcomes, I can see how a focus on disease is just incomplete and reductionist. When thinking of disease prevention and health promotion I got caught up in those negative aspects that needed to be changed and improved. At the same time, I forgot about all those positive things that can come with sex. Is sex not also an act of desire, of trust and intimacy, of love of another being? What about that feeling of deep connection with another human? Some of these elements appeared in my research (trust and love). I could see that they were crucial to understand sexual practices (and to understand risk). There needs to be more of a positive approach to sex. Public health strategies need to move beyond framing sex as a risk (for unplanned/unwanted pregnancies, for STIs, for HIV,…) towards the potential pleasure and magic of it. The same way that I realised that we might need to frame sex differently, we also need to do this with sexual health. And that is where another tension in my research has resided. I had aimed at developing a service to prevent STIs and BBVs. Ok. Was that all that was needed? No, not at all. There is so much more that we need to focus on, especially social and health inequities. Sexual health is also about equity and human rights, it is also about the right for having non-coerced and pleasurable sex. This is something that I would definitely explore and include in the aims and objectives of my research if I was starting it again. Even if I could not re-frame my aims and objectives completely I made sure that these reflections were included in the discussion of my research.

I constantly have discussions around my work, and even these have taught me a lot and have been reflected in my research. Overall, I have encountered people who embody the social realities of patriarchy and misogyny, the taboo of sex, the intersectionality of stigmas (towards women, drug use, sex, sexual health, transactional sex, homosexuality, homelessness, and the list goes on), the *blame culture* and existing social discrimination and violence. But I have also had conversations with "those who get it", which gives me hope that the voices of women will be listened.

Giving meaning to the social issues that I am presenting in my thesis has been at the core of my thinking about promoting sexual health. And this is because I came to realise how social and structural matters are at the core of what we call *health*. I strongly believe that public health and health promotion need to go hand-by-hand with an exploration of

social, cultural, political, and economic factors. Public health and health promotion should serve as a call for social justice and as a means for social change. Today, I am hopeful that my research can modestly contribute to fight the challenges that we are facing today. I am hopeful that the stories in this thesis will serve as a reflection of what really matters, not just for promoting health but for humanity to progress. We are living a moment of social, political, cultural and environmental change. Let's embrace it and build a better future *for all*.

CHAPTER 3. A Systematic Literature Review on the Risk of STIs and BBVs among Women Using Heroin and Other Drugs

3.1. Overview

There is a lack of understanding about the factors associated with the sexual risks that women using opioids experience, and the association with the risk of sexual transmission of STIs and BBVs. This chapter includes a publication of a systematic literature review (Study 1). Although this PhD is focusing on the experiences of WOST, the systematic literature review aimed to be more comprehensive and include other women who may not be accessing drug treatment (WHOD). This offered the opportunity to explore and recognize the issues that women using drugs – and not only those accessing treatment – may face. This was as it is likely that accessing treatments such as OST could reduce the challenges that women may endure. Recruiting WOST only could be an anchor on which to involve other women using drugs in future research and practice. The systematic literature review then aimed to identify the factors associated with the risk of STIs and BBVs among WHOD (see page 19 for details on methodology). This related to the first objective of this research, that was "to identify and explore the factors associated with the heightened risk of sexual transmission of STIs and BBVs among WOST" (see page 10).

The findings from the systematic literature review were orally presented at the STI & HIV World Congress in Rio de Janeiro (Brazil) in July 2017 (see Appendices 20 and 25). A poster presentation was given at the Society for the Study of Addiction (SSA) Conference in Newcastle (UK) in November 2017 (see Appendices 20 and 26). The findings from this study were written in a journal format and submitted for publication to the peer-reviewed journal *AIDS & Behavior* on 9th of October 2017. The paper was accepted on 22nd of July 2018, and published online on 2nd of August 2018.

3.2. Publication

Reference: Medina-Perucha, L., Family, H., Scott, J., Chapman, S. & Dack, C. (2018). Factors associated with sexual risks and risk of STIs, HIV and other blood-borne viruses among women using heroin and other drugs: A Systematic Literature Review. *AIDS and Behavior*. https://doi.org/10.1007/s10461-018-2238-7.

The publication is presented as published online.

AIDS and Behavior
https://doi.org/10.1007/s10461-018-2238-7

SUBSTANTIVE REVIEW

Factors Associated with Sexual Risks and Risk of STIs, HIV and Other Blood-Borne Viruses Among Women Using Heroin and Other Drugs: A Systematic Literature Review

L. Medina-Perucha[1,3] · H. Family[1] · J. Scott[1] · S. Chapman[1] · C. Dack[2]

Abstract

This systematic literature review identified factors associated with sexual risks related to sexually transmitted infections (STI), HIV and other blood-borne viruses (BBV) among women using heroin and other drugs. The search strategy included five databases (PubMed, EMBASE, PsycNET, Web of Science, Scopus), and PsycEXTRA for grey literature. Out of the 12,135 publications screened, 30 peer-reviewed articles were included. Most publications were cross-sectional (n = 25), quantitative (n = 23) and included 11,305 women. Factors identified were: (1) socio-demographics; (2) gender roles and violence against women; (3) substance use; (4) transactional sex; (5) partner characteristics, partner's drug use, and context of sex; (6) preferences, negotiation and availability of condoms; (7) HIV status and STIs; (8) number of sexual partners; (9) love and trust; (10) reproductive health and motherhood; and (11) risk awareness and perception of control. Overall, this review highlights important implications for future research and practice, and provides evidence for developing STI/BBV preventive strategies.

Keywords HIV/aids · Sexually transmitted infections · Women using heroin and other drugs · Sexual risks

Resumen

Esta revisión sistemática identifica factores asociados con el riesgo de enfermedades de transmisión sexual, VIH y otros virus de transmisión sanguínea, en mujeres que consumen heroína y otras drogas. La búsqueda bibliográfica se realizó en cinco bases de datos (PubMed, EMBASE, PsycNET, Web of Science, Scopus), y en PsycEXTRA para literatura gris. De las 12,135 publicaciones revisadas, 30 artículos publicados en revistas científicas se incluyeron en esta revisión sistemática. La mayoría de publicaciones son transversales (n=25), cuantitativas (n=23), e incluyen 11,305 mujeres. Los factores identificados son: 1) características sociodemográficas; 2) roles de género y violencia de género; 3) uso de sustancias; 4) trabajo sexual; 5) características y consumo de sustancias de la pareja sexual, y contexto de las relaciones sexuales; 6) preferencias, negociación y disponibilidad de preservativos; 7) estatus de VIH y otras enfermedades de transmisión sexual; 8) número de parejas sexuales; 9) amor y confianza; 10) salud reproductiva y maternidad; y 11) concienciación del riesgo y percepción de control. Esta revisión sistemática presenta importantes implicaciones para la investigación y prácticas preventivas. Además, reúne evidencia para el desarrollo de campañas para la prevención de enfermedades de transmisión sexual, VIH y otros virus de transmisión sanguínea.

Introduction

Women using heroin and other drugs (WHOD) are particularly vulnerable to sexually transmitted infections (STIs), HIV and other blood-borne viruses (BBVs) [1–13]. Sexual risk practices (e.g., condomless sex) and experiencing violence have been suggested to contribute to this increased vulnerability [2, 3, 13–21]. These sexual risks are more prevalent among women because of gender inequities and gender-based violence towards women [7, 13, 22–24]. Women

Electronic supplementary material The online version of this article (https://doi.org/10.1007/s10461-018-2238-7) contains supplementary material, which is available to authorized users.

✉ L. Medina-Perucha
l.medina.perucha@bath.ac.uk

[1] Department of Pharmacy and Pharmacology, University of Bath, Bath BA2 7AY, UK

[2] Department of Psychology, University of Bath, Bath, UK

[3] 5 West, 2.52, Department of Pharmacy and Pharmacology, University of Bath, Bath BA2 7AY, UK

Published online: 02 August 2018

are also at higher risk due to their higher engagement in transactional sex [25–28]. Women are also more commonly affected by asymptomatic STIs [9], which may lead to delays in help-seeking behaviours and, therefore, timely screening, diagnosis and treatment.

The factors associated with the increased vulnerability to sexual risks account for the psychological, social, cultural, economic, organisational and political elements that are linked to sexual health. Contrarily to *determinants* of health, factors do not infer causality [29–32]. As there are also factors that may promote health behaviour change, it is crucial to understand the interplay of factors that have a role in the heightened vulnerability to sexual risks among WHOD, and the sexual transmission of STIs, HIV and other BBVs. Rather than merely focusing on changing drug use behaviour, it is also crucial to understand how we might change women's vulnerability to sexual risks that are known to be associated with an increased risk of STIs, HIV and BBVs [9].

Preventive strategies for BBVs (and especially HIV) have been among the main public health priorities worldwide since the 1980s [33], when the first cases of HIV/AIDS were reported [34]. Most research and preventive programmes have focused on HIV transmission (and more recently viral hepatitis) via unsafe drug use (i.e., sharing needles and paraphernalia), overlooking sexual contact as a main vector of infection [18, 35–38]. Programmes tackling STIs have been predominantly focused on HIV prevention [36, 39, 40]. Since the Second World War, programmes tackling viral hepatitis have been associated with vaccines development and the discovery of new hepatitis viruses [41]. Recently, research has focused on responding to epidemics and outbreaks, recording prevalence rates, and developing preventive interventions, especially for HIV/AIDS and Hepatitis C. Even though it is crucial to recognise the importance of taking a social ecological approach to understand STI/BBV risk [13, 42–45], the evidence of the psychosocial and socio-structural factors associated with sexual risks remains scarce and unclear. This is due to the individualistic approach often taken in research and STI/BBV public health strategies for WHOD.

The main aim of this systematic literature review is to identify factors associated with sexual risks[1] that lead to a heightened risk for STIs, HIV and other BBVs among WHOD. A secondary aim is to review the nature and quality of the evidence available. A critical approach is taken to highlight gaps in the evidence base and implications for the development of STI/BBV preventive strategies.

Methods

Eligibility Criteria

We included papers that identified factors relating to sexual risks, among adult (≥ 18 years) heterosexual women, or women who have sex with women, that were heroin or polydrug users whose primary drug of use was heroin. Studies included were of qualitative and quantitative methodologies. We excluded reviews and publications that were not in English language, studies focusing on the effectiveness of an intervention/treatment or where heroin was not the most prevalent drug of use, and studies where findings were not provided for female participants separately. The search was restricted to publications published between 1995 and end of June 2016. An inductive approach was taken for this review. All papers that discussed outcomes of sexual risks, including sexual experiences and sexual practices that may contribute to an increased exposure to STI/BBVs (e.g., experiencing sexual violence or selling sex) were included, regardless of how the outcomes/factors were measured or the time when they occurred.

Search Strategy

The search strategy included five databases: PubMed, EMBASE, PsycNET, Web of Science and Scopus. PsycEXTRA was used for grey literature and other publications. Study authors were contacted when there was no full-text access, and to identify potential additional studies. Search terms included were "women*", "heroin use*", "sexual behaviour*", and "HIV" (see Fig. 1). The search and study selection were performed by the first author (LMP). The second (HF) and last (CD) authors reviewed ten percent of the publications at all screening stages. Three researchers (LMP, HF, and CD) met regularly to discuss each stage of the screening. Any disagreements regarding the inclusion or exclusion of papers were resolved over the meetings.

Search Outcome

Thirty peer-reviewed articles were included in the review. Reasons for exclusion, ordered from most to least common, were: (1) women-only data were not available; (2) study participants did not use heroin, or heroin was not the most prevalent drug of use; (3) the paper provided descriptive data of sexual risks only, and did not relate these to psychosocial or socio-structural factors; (4) the focus of the paper was on intervention outcomes or intervention effectiveness; (5) drug

[1] Sexual risks were defined to be women's engagement in sexual risk practices (e.g., condomless sex), or the exposure to situations in which women were vulnerable to sexual health risks (e.g., sexual violence).

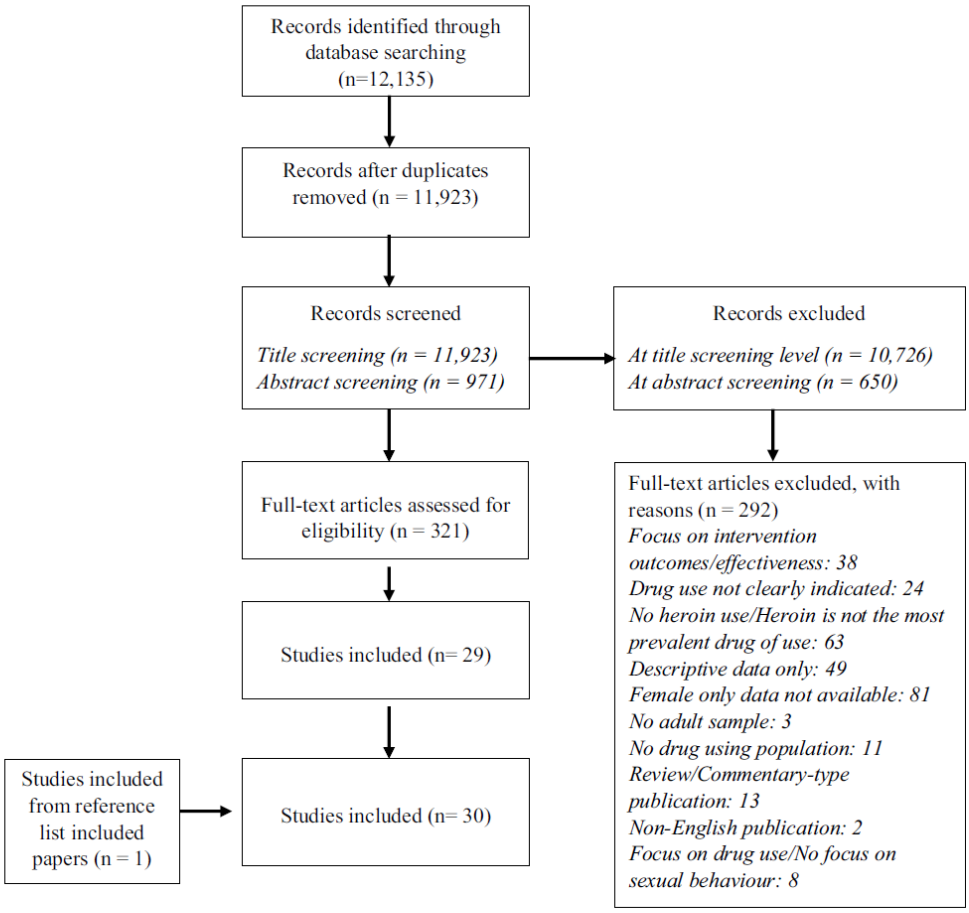


Fig. 1 Flow diagram of study selection criteria

use was not clearly indicated; (6) the paper was a review or a commentary-type publication; (7) study participants were from the general population rather than from drug-using populations; (8) the focus was on drug use, or there was no focus on sexual risks; (9) most study participants were below 18 years old; and (10) the publication was not in English (see Fig. 1).

Quality Analyses

The PRISMA 2009 guidelines [46] and the Standard Quality Assessment Criteria for Evaluating Primary Research Papers from a Variety of Fields [47] were used for quality assessment purposes. Inter-rater reliability between the three reviewers was calculated at all screening stages (i.e., title, abstract, and full-text screening). Cohen's Kappa was 0.5 on average, indicating a moderate and acceptable degree of agreement [48]. The inclusion/exclusion of papers was discussed between the three reviewers to reach full agreement. This systematic review was registered with PROSPERO (Reference PROSPERO 2016: CRD42016039842), available from http://www.crd.york.ac.uk/PROSPERO/display_record.asp?ID=CRD42016039842.

Results

Study Characteristics

A total of 30 peer-reviewed articles were included in this review. Most publications were cross-sectional (n = 25), four were longitudinal [49–52], and one was a case study [53]. There were 23 quantitative studies and seven qualitative studies [53–59]. The studies were conducted in several

countries, but most commonly in the United States (n = 13). All papers were published between 1995 and 2015, and data was collected over a period between 2 weeks and 9 years. Seventeen publications were women-only studies [51, 52, 57, 58, 60–72]. See Table 1 for further details on the papers' characteristics.

The quality of the quantitative studies ranged between 4 and 16, and the average score was 12.7 (0 being the minimum and 16 the maximum possible score). The quality scores for the qualitative studies ranged between 11 and 18, and the average was 14.7 (0 being the minimum and 20 the maximum possible score) (see Supplementary Material). Only six papers included information about risk bias assessment [51, 59, 62, 67, 70, 73]. Strategies included training, regular meetings, participant checks, reflexive analysis, inter-rater checks, and assurance of qualitative data saturation. Few studies used specific theoretical approaches [53, 55, 56, 59, 62, 74]. None of the publications were excluded based on their quality, to capture the nature and quality of the evidence available in the area of study covered in this review. However, the range in the papers' quality should be taken into account when interpreting the findings of this review.

Sample Characteristics

There was a significant amount of missing and heterogeneous data within the included papers. The sample characteristics presented are based on the available data only. The review included 11,305 women based on all papers but one [54] in which the number of female participants was not specified. The mean age was 31 years ($SD = 5.11$) [49, 53, 56, 57, 59–64, 66–71, 74, 75], 25.5% were African American, 22.5% Latin/Hispanic, 18.6% Indigenous Australian, 15.4% White/Caucasian, 11.6% Asian, 4.9% Indigenous (North American), and 1.5% were from non-specified ethnicities [49, 51, 56, 60–63, 65, 67–69, 71, 72, 74, 75]. Heroin was used by 44.6% of women, followed by methadone (22.3%), cocaine and/or crack cocaine (21.7%), methamphetamine (16.8%), alcohol (7.6%), speedball (3.2%), cannabis (2.3%), tobacco (1%), liquefied opium/opium (0.2%), inhalants (0.2%), and heroin together with other narcotics (0.2%) [49, 51–53, 55–73, 75–77]. Seven papers included data on sexual orientation [52, 56, 58, 68, 70, 74, 75], and indicated that 78.3% women in these studies were heterosexual and 21.7% were lesbian or bisexual. Data available revealed that 47.8% women were married, in common-law or cohabiting, 25% were single, 24% were separated, divorced or widowed, and 3.2% had a non-specified marital status [49, 51, 52, 56, 57, 60–65, 67, 70, 71, 74, 75, 77, 78]. Over a third of women (34.9%) had been homeless at some point in the last year, and 41.5% had been homeless at some point in their lives [60, 62, 63, 65, 68, 69, 74]. More than half (58.2%) had been in prison [58–60]. Most women engaged in transactional sex[2] at the time they participated in the studies (89.6%), 6.1% at some point in the previous year, and 4.3% had exchanged sex for money and/or drugs at some point in their lives [49–53, 57, 63, 64, 67–74, 76–78].

Synthesis of Results

The inductive nature of this study led to identifying outcomes a posteriori, so as a result of the data analysis. There were six main outcomes in the included papers that were found to be linked to STI/BBV risk. These were (1) condom use; (2) transactional sex; (3) experiencing sexual violence; (4) sexual activity; (5) type and characteristics of the sexual partner; and (6) drug use with sex partners.

Eleven factors were identified to be associated with the sexual risk outcomes above, and ultimately with STI/BBV risk. These were (1) socio-demographics; (2) gender roles and gender-based violence; (3) substance use; (4) transactional sex; (5) partner characteristics, partner's drug-using patterns, and context of sex; (6) preferences, negotiation and availability of condoms; (7) HIV status and sexually transmitted infections; (8) number of sexual partners; (9) love and trust; (10) reproductive health and motherhood; and (11) risk awareness and perception of control.

Some sexual risk outcomes were also found to be factors associated with sexual risks (e.g., transactional sex was a factor found to be associated with condom use). The identification of factors and sexual risk outcomes was based on the conceptualisation made in each of the papers included in the review. This reflects both the lack of homogeneity of the evidence available, and the complexity of interrelations between outcomes and factors of STI/BBV risk.

This section has been organised by sexual risk outcomes. An explanation on the evidence of the relationship between research outcomes and each of the identified factors is provided (see Table 2).

[2] The term *transactional sex* is used in this review to define the exchange of sex for money and/or goods, including drugs. As cited by McMillan et al. "(…) the terminology of transactional sex is employed to indicate that particular people who exchange sex for payment would be misrepresented or unnecessarily stigmatized by categorization as prostitutes or sex workers. A need for differentiation from sex work has been asserted on the grounds that the sexual transactions are a financial necessity and a desperate measure, or are opportunistic and temporary responses to limited income options, or that they are non-commercial as the exchange enacts symbolic rather than financial functions. (…)" [79].

Table 1 Main characteristics of included papers

Reference	Country	Study type and setting	Sample	Data collected	Factors identified	Measures	Quality score
Gossop et al. [60]	United Kingdom	Quantitative; cross-sectional; community	N = 51 female sex workers	Socio-demographics; initiation into prostitution; current sexual behaviour with clients; use of condoms; drug injection behaviours; alcohol use; relationship between their drug use and prostitution; sexual behaviours with non-paying sexual partners; HIV status; number of partners and behaviours	Substance use (alcohol use, drug use); sex work; partner characteristics, partner's drug using-patterns, and context of sex; HIV status and other STIs	Structured interviews; self-completion non-standardised questionnaire	4/16
Nyamathi et al. [61]	United States	Quantitative; cross-sectional; community	N = 378 impoverished women injecting drug users, or partners of injection drug users	Socio-demographics; sexual activity (unprotected sex in the last 6 months; unprotected sex with personal partners; number of persons they had sex with in that period); drug use; barriers to condom use; barriers to needle cleaning	Socio-demographics (age, ethnicity, housing conditions); substance use (drug use); partner characteristics, partner's drug using-patterns, and context of sex; preferences, negotiation and availability of condoms; HIV status and other STIs; having multiple partners; reproductive health and motherhood	Drug use questionnaire (revised from the AIDS initial assessment questionnaire (AIA); 14-item condom use subset of the AIA (only women who had unprotected sex with their partners); 10-item needle cleaning subset of the AIA (only women who reported injection drug use)	5/16
Grella et al. [62]	United States	Quantitative; cross-sectional; community	N = 158 women in methadone maintenance treatment	Socio-demographics; polydrug use; alcohol use; depression; illegal activity; lives with drug-using partner; negative family history; sex abuse history; number of needle-sharing partners; sex behaviours; treatment retention	Socio-demographics (age, education); substance use (alcohol use, drug use); sex work; partner characteristics, partner's drug using-patterns, and context of sex; having multiple partners	Face-to-face interviews (based on the natural history interview)	16/16

Table 1 (continued)

Reference	Country	Study type and setting	Sample	Data collected	Factors identified	Measures	Quality score
Carlson [54]	United States	Qualitative; cross-sectional; community	N = 62 injecting drug users (number of women not specified)	Socio-demographics; history of drug use; drug dealing; use of shooting galleries; needle transfer and circulation; needle cleaning; AIDS knowledge; sexuality; gender roles; condom use	Gender roles and violence against women; partner characteristics, partner's drug using-patterns, and context of sex	In-depth qualitative interviews; participant observation	11/20
El-Bassel et al. [63]	United States	Quantitative; cross-sectional; community	N = 145 women in methadone clinics	Socio-demographics; drug use (previous 30 days, past year and lifetime); sexual behaviours (sexual activity and sex work past year); partner violence (physical, life-threatening, or sexual abuse by intimate partner); childhood sexual abuse; childhood physical abuse (occurrence, number of times, before age 16, that they suffered from physical abuse by parent or guardian); witnessing their mothers being abused by her intimate partner	Gender roles and violence against women	Drug use and drug risk behavior questionnaire; other measures not specified	16/16
Gilbert et al. [64]	United States	Quantitative; cross-sectional; community	N = 147 women in methadone maintenance treatment	Socio-demographics; drug use; sexual risk behaviour; childhood sexual abuse; childhood physical abuse; partner violence (physical abuse; life-threatening abuse; sexual abuse)	Gender roles and violence against women	Not specified	16/16

Table 1 (continued)

Reference	Country	Study type and setting	Sample	Data collected	Factors identified	Measures	Quality score
Tortu et al. [65]	United States	Quantitative; cross-sectional; community	N = 320 women	Socio-demographics; risk factors (e.g., injection drug use, HIV serostatus; non-commercial sexual events (incl. partner characteristics; relationship-specific and event-specific variables)	Substance use (alcohol use, drug use); partner characteristics, partner's drug using-patterns, and context of sex; preferences, negotiation and availability of condoms; HIV status and other STIs; love and trust; reproductive health and motherhood; risk awareness and perception of control	Face-to-face structured interviews; biological testing for cocaine and morphine	15/16
Albertín-Carbó et al. [55]	Spain	Qualitative; cross-sectional; community	N = 113 (n = 36 women) on methadone treatment	Socio-demographics; daily life activities (including sexual behaviours)	Sex work; partner characteristics, partner's drug using-patterns, and context of sex; reproductive health and motherhood	Ethnographic observation	15/20
Epele et al. [56]	United States	Qualitative; cross-sectional; community	N = 35 (n = 25 women) injecting drug users from Latino minorities	Socio-demographics; characteristic of gender relationships; drug history; current drug use; drug treatment history; injection behaviours; sexual behaviours (sex work; sexual behaviours in stable relationships)	Gender roles and violence against women; sex work	In-depth interviews	13/20

Table 1 (continued)

Reference	Country	Study type and setting	Sample	Data collected	Factors identified	Measures	Quality score
Hansen et al. [57]	Puerto Rico	Qualitative; cross-sectional; national	N = 311 female sex workers	Socio-demographics; specific sexual behaviours; how sexual behaviours are requested and negotiated; who determined the sexual behaviours; whether any behaviours were refused; where the behaviours were performed; how much time they spent with the client; how much and with what they were paid; how and where they were left after the encounter; what they did immediately after the encounter; what they did with the money earned; use of condoms and other forms of protection; how protection was discussed; who provided the protection	Gender roles and violence against women; sex work; partner characteristics, partner's drug using-patterns, and context of sex; reproductive health and motherhood	Open-ended survey question: "Describe your experience with your last client from the time you encountered him until he left" (part of a 209-item survey instrument)	17/20
Miller et al. [73]	Canada	Quantitative; cross-sectional; community	N = 1437 (n = 597 women) injecting drug users	Socio-demographics; drug use and drug-using risk behaviours; sex work; sexual abuse; sexual history; condom use	HIV status and other STIs	Not specified	15/16
Miller et al. [74]	United States	Quantitative; cross-sectional; community	N = 257 (n = 92 women)	Socio-demographics; drug use; characteristics of network members; drug treatment; sexual behaviours in the past 30 days (not partner specific); characteristics of sexual partners	Socio-demographics (age); substance use (drug use); partner characteristics, partner's drug using-patterns, and context of sex; HIV status and other STIs; having multiple partners	Structured face-to-face interviews	14/16

Table 1 (continued)

Reference	Country	Study type and setting	Sample	Data collected	Factors identified	Measures	Quality score
Sánchez et al. [76]	United States	Quantitative; cross-sectional; community	N = 241 (n = 84 women) heroin sniffers with no history of injection drug use	Socio-demographics; history drug use; drug use networks; sex history; criminal justice history	Substance use (drug use)	Modified AIDS risk questionnaire	9/16
Tyndall et al. [49]	Canada	Quantitative; longitudinal; community	N = 1400 (n = 505 women) injecting drug users	Socio-demographics; history of injection drug use in the preceding month; sexual behaviours; health services utilisation (e.g. emergency departments; clinics; hospitals)	Socio-demographics (ethnicity, housing conditions, legal involvement); substance use (drug use); sex work	Interview administered questionnaire	8/16
Gore-Felton et al. [66]	Russia	Quantitative; cross-sectional; community	N = 188 young drug users (18–25 years old)	Socio-demographics; history of STIs; injection drug use behaviour and drug-using behaviours; sexual behaviour	Socio-demographics (age); substance use (drug use)	Non-validated 72-item survey assessment	4/16
Medrano et al. [75]	United States	Quantitative; cross-sectional; community	N = 696 (n = 358 women) injecting drug users	Socio-demographics; substance use histories; sexual risk behaviours; histories of sexually transmitted diseases; childhood trauma (physical; sexual; emotional abuse; physical; emotional neglect)	Socio-demographics (age, education, marital status); gender roles and violence against women; substance use (drug use)	Pre-assessment with the risk behavior assessment (RBA); childhood trauma questionnaire (CTQ)	15/16
Wang et al. [67]	China	Quantitative; cross-sectional; community	N = 171 female sex workers	Socio-demographics; sexual behaviours; drug-using behaviours; HIV knowledge and attitudes	Socio-demographics (marital status, employment and financial aspects); substance use (drug use); sex work	77-item self-reported questionnaire	9/16

Table 1 (continued)

Reference	Country	Study type and setting	Sample	Data collected	Factors identified	Measures	Quality score
Bell et al. [68]	United States	Quantitative; cross-sectional; community	N = 251 women injecting/non-injecting drug users	Socio-demographics; drug-using patterns; sexual behaviours (incl. age at sexual debut; lifetime and current sexual history; STI history; frequency of unprotected and protected sex with steady, casual; sex trade partners); HIV and Hepatitis C screening and post-test counselling provided	Socio-demographics (sexual orientation)	Non-validated questionnaire	16/16
Lee et al. [58]	Taiwan	Qualitative; cross-sectional; community	N = 40 women injecting drug users in prison	Socio-demographics; acceptability and personal evaluation of health education materials/strategies; perceptions and personal evaluation of prison-based health education for female drug users; knowledge and health beliefs of the sample relating to HIV/AIDS; relationships between HIV/AIDS and drug use; issues relating to HIV testing resources; HIV/AIDS preventive behaviours and strategies; HIV/AIDS issues specific to women (e.g. mother-to-child transmission through breast feeding)	Sex work; partner characteristics, partner's drug using-patterns, and context of sex; love and trust	Focus groups	18/20
Gu et al. [51]	China	Quantitative; longitudinal; community	N = 281 female sex workers and injecting drug users	Socio-demographics; perceived economic pressure; severity of drug dependence; questions on HIV-related risk behaviours	Socio-demographics (age, employment and financial aspects); substance use (drug use); sex work; HIV status and other STIs	Pre-tested non-validated questionnaire; 11-item revised Chinese Opiate Additive Severity Index-Revised (OASI-R)	15/16

Table 1 (continued)

Reference	Country	Study type and setting	Sample	Data collected	Factors identified	Measures	Quality score
Lam [59]	Vietnam	Qualitative; cross-sectional; community	N = 75 (n = 31 women) injecting drug users	Socio-demographics; sexual relations and risk behaviours; drug use; social contexts of multiple sexual relations; risk-taking behaviours; Argot/slang used by members of IDUs' networks; social context; daily life activities	Gender roles and violence against women; sex work; partner characteristics, partner's drug using-patterns, and context of sex; love and trust	Focused ethnographic interviews; focus groups; participant observation; case study research	15/20
Gu et al. [78]	China	Quantitative; cross-sectional; community	N = 162 (n = 59 women) injecting drug users	Socio-demographics; self-reported HIV status; perceived family relationship; perceived social isolation; drug-using patterns; needle sharing; sex work; sexual history; condom use	Substance use (drug use)	Not specified	16/16
Cavanaugh et al. [69]	United States	Quantitative; cross-sectional; community	N = 214 black and white women	Socio-demographics; drug use; sexual behaviour; history of STIs; HIV status	Socio-demographics (ethnicity)	The HIV risk behavior interview	16/16
Peng et al. [70]	Taiwan	Quantitative; cross-sectional; national	N = 263 HIV ± women in prison	Socio-demographics; drug-using risk behaviours; sexual-related risk behaviours; social factors (having drug-using sexual partner within 6 months prior to incarceration; working in nightclubs or bars; experience of physical abuse; exchanging sex for money or drugs)	HIV status and other STIs	Non-validated questionnaire	9/16

Table 1 (continued)

Reference	Country	Study type and setting	Sample	Data collected	Factors identified	Measures	Quality score
Gaines et al. [52]	Mexico	Quantitative; longitudinal; community	N = 584 (baseline); N = 567 (follow-up) female sex workers	Socio-demographics; condom use; drug-using risk behaviours; sexual risk behaviours (incl. history of STIs); sex working location; HIV and STI testing was provided	Socio-demographics (age, education, marital status, employment and financial aspects); substance use (alcohol use, drug use); sex work; preferences, negotiation and availability of condoms	Face-to-face interviews; biological testing for HIV/STIs	15/16
Goldenberg et al. [71]	Mexico	Quantitative; cross-sectional; national	N = 214 female sex workers	Socio-demographics; drug use; involuntary sex exchange; client interactions; intimate partner violence; social-structural factors; work environment; gender-based violence; HIV/STI testing	Socio-demographics (age, ethnicity); gender roles and violence against women; substance use (drug use); sex work; partner characteristics, partner's drug using-patterns, and context of sex; preferences, negotiation and availability of condoms; HIV status and other STIs	Non-validated questionnaire; blood specimens (for HIV/STI testing)	15/16
Mackesy-Amiti et al. [50]	United States	Quantitative; longitudinal; community	N = 561 (n = 209 women) non-injecting drug users	Socio-demographics; alcohol use; injection and non-injection drug use; sexual activity	Socio-demographics (age, education, ethnicity, housing conditions); substance use (drug use); partner characteristics, partner's drug using-patterns, and context of sex	Audio-computer-assisted self-interview (ACASI)	15/16
Iversen et al. [72]	Australia	Quantitative; cross-sectional; national	N = 5378 women injecting drug users	Socio-demographics; drug use/history; sexual risk behaviours in the preceding month; HIV and HCV testing; history of opioid substitution treatment	Socio-demographics (sexual orientation)	Non-validated questionnaire	14/16

Table 1 (continued)

Reference	Country	Study type and setting	Sample	Data collected	Factors identified	Measures	Quality score
Syvertsen et al. [77]	Mexico	Quantitative; cross-sectional; national	N = 214 couples (n = 214 female sex workers)	Socio-demographics; lifetime and recent sexual and drug-related HIV risk behaviours (unprotected sex; concurrent sexual partners; syringe sharing); depression; relationship-level variables (relationship satisfaction; prevalence of past-year verbal and physical conflict); emotional constructs of love and trust	Love and trust	Computerised non-validated questionnaires; revised conflict tactics scale (subscales for psychological aggression, physical assault, injury or sexual assault); 19-item triangular love scale (adapted); 8-item dyadic trust scale (adapted)	16/16
Syvertsen et al. [53]	Mexico	Qualitative; case study	N = 2 (heterosexual couple); n = 1 female sex worker, injecting drug user	Socio-demographics; drug-using patterns; drug-using risks; romantic relationships; love and trust; sex work; partner characteristics; life story; sexual health risks	Sex work; love and trust	Ethnographic observation; field notes	14/20

All participants in the included studies were using drugs

Table 2 Identified factors and outcomes

Factors	Outcomes	Reference included papers
Socio-demographics		
Age	Condom use	[50–52, 61, 62, 66, 71, 74]
	Transactional sex	[50, 75]
	Number of sexual partners	[66]
Education	Condom use	[52, 62]
	Transactional sex	[62, 75]
Ethnicity and country of origin	Condom use	[50, 61, 71]
	Transactional sex	[49, 50, 69]
	Number of sexual partners	[61]
	Type and characteristics of the sexual partner	[50, 69]
	Sexual violence	[71]
	Sexual activity	[69]
	Drug use with sexual partners	[69]
Sexual orientation	Transactional sex	[68, 72]
	Number of sexual partners	[68]
	Sexual activity	[68]
	Type and characteristics of the sexual partner	[68, 72]
Marital status	Condom use	[52]
	Transactional sex	[67, 75]
Housing conditions	Condom use	[50, 61]
	Transactional sex	[49]
	Number of sexual partners	[50]
	Sexual activity	[50]
Employment and financial aspects	Condom use	[51, 52]
	Transactional sex	[51, 67]
Legal involvement	Transactional sex	[49]
Gender roles and violence against women	Condom use	[56, 59, 64, 71]
	Transactional sex	[54, 56, 63, 64, 75]
	Number of sexual partners	[64]
	Type and characteristics of the sexual partner	[64]
	Sexual violence	[56, 59, 71]
Substance use		
Alcohol use	Condom use	[52, 60, 62, 65]
Drug use	Condom use	[51, 52, 60–62, 65, 74]
	Transactional sex	[49–51, 53, 56, 57, 59, 60, 66, 67, 75, 76, 78]
	Number of sexual partners	[50, 66, 76]
	Type and characteristics of the sexual partner	[76]
	Sexual violence	[71]
	Sexual activity	[60]
Transactional sex	Condom use	[51, 52, 55–60, 67]
	Number of sexual partners	[51, 62, 67]
	Sexual violence	[54, 56, 57, 59, 71]
	Sexual activity	[67]
	Type and characteristics of the sexual partner	[49, 67]
Partner characteristics, partner's drug use, and context of sex	Condom use	[50, 54, 55, 57–62, 65, 71, 74]
	Sexual violence	[71]
Preferences, negotiation and availability of condoms	Condom use	[52, 61, 65, 71]

Table 2 (continued)

Factors	Outcomes	Reference included papers
HIV status and sexually transmitted infections	Condom use	[51, 61, 65, 70, 73, 74]
	Transactional sex	[51, 73]
	Number of sexual partners	[73]
	Sexual violence	[71]
	Type and characteristics of the sexual partner	[70, 73]
Number of sexual partners	Condom use	[61, 62, 74]
	Type and characteristics of the sexual partner	[62]
Love and trust	Condom use	[53, 58, 59, 65, 77]
Reproductive health and motherhood	Condom use	[55, 57, 61, 65]
Risk awareness and perception of control	Condom use	[65]

Condom Use

Factors identified to be correlated to condom use were (1) socio-demographics; (2) gender roles and gender-based violence; (3) substance use; (4) transactional sex; (5) partner characteristics, partner's drug-using patterns and context of sex; (6) preferences, negotiation and availability of condoms; (7) HIV status and sexually transmitted infections; (8) number of sexual partners; (9) love and trust; (10) reproductive health and motherhood; and (11) risk awareness and perception of control.

Socio-demographics

Age There seemed to be a relationship between age and condom use. Six papers found that age was significantly correlated with engaging in condomless sex [50, 51, 61, 62, 66, 74]. However, data from another paper indicated that this correlation was non-significant [52]. The nature of the association between age and condom use was unclear. In one study, women over 35 years old were significantly more likely to have condomless sex, compared to younger women [61], whereas condom use was marginally and positively associated with age in another study [74]. Among women who engaged in transactional sex, those who were 36 years old or older were more likely to use condoms inconsistently[3] followed by women between 26 and 30, women between 31 and 35, and 25-year-old women and younger [51].

Education Data on formal education and condom use were conflicting. Evidence from one paper indicated that graduating from high school was negatively correlated to condom use [62]. Education attainment was found to be non-significantly correlated to using condoms in another study [52].

Ethnicity There were differences in condom use and reported barriers for condom use among women from different ethnicities. White women were more likely to engage in condomless sex with a main partner than Black women [50]. Compared to African Americans, Latina women were more likely to report partner's dislike of condoms as a barrier for condom use. In turn, African American women reported greater lack of skills using and negotiating condom use, difficulties to get condoms, and discomfort using condoms [61]. Compared to Latinas, there were more reports of African American women not considering using condoms when they were under the influence of drugs [61]. African Americans were also more likely to believe that their partner did not have AIDS, and that they could not transmit HIV to their partners compared to Latinas [61]. These beliefs were associated with having condomless sex.

Marital Status Only one study reported a relationship between marital status and condom use. The findings from this study indicated that there was a non-significant positive correlation [52].

Housing Conditions Higher reports of condomless sex were made by homeless women who injected drugs, compared to those in drug recovery programmes [61]. Women who were cohabiting were more likely, than those who were not, to have condomless sex with steady partners,[4] and reported more condomless anal sex [50].

Employment and Financial Aspects Transactional sex was associated with an increased likelihood to use condoms inconsistently in the previous 6 months if women perceived great economic pressure due to drug using practices and living expenses [51, 52]. There was also a direct impact of economic pressure on general HIV-related sexual risk and on inconsistent condom use in the past 6 months [51]. One

[3] Not using condoms for all sexual encounters throughout the whole sexual act, or for any sexual activity.

[4] Sexual and/or romantic relationship that is maintained over time.

study suggested a non-significant correlation between self-rated financial situation and consistent condom use[5] [52].

Risk Awareness and Perception of Control

Condom use was predicted when women perceived control over condom use, and using a condom made women feel responsible [65]. A frequent barrier to condom use was the belief that women did not need protection for sex [65].

Reproductive Health and Motherhood

The fertility of WHOD was perceived to be significantly reduced as a result of their heroin use. The use of condoms was dependent on whether women wanted to have a child or prevent pregnancy. As expected, condomless sex was common among women who wanted to become pregnant [55], had a partner that wanted a child [61], or had a tubal ligation [65]. On the contrary, condom use was higher among those women who wanted to prevent pregnancy [61, 65]. On the other hand, condomless sex was frequent among mothers involved in transactional sex. This was to maintain regular clients and earn more money to provide for their children [57].

Number of Sexual Partners

The number of male sexual partners was positively correlated with a lack of condom use [62]. These differences were however not significant over a 3-year period [61]. Having had two or more sexual partners in the last 30 days was negatively correlated with the risk of having condomless sex [74]. When adjusting for other variables, having more than two sexual partners was not significantly associated with condomless sex [74].

Love and Trust

In romantic relationships, condomless sex was habitual as it was positively associated with feelings of love [77] and trust [58, 59]. Women expressed that suggesting condom use in steady relationships could raise concerns of infidelity and suspicion [58, 59], and that condoms created an emotional barrier with their partners [58]. However, although non-significant and inconsistent to the relationship between love and condomless sex, another study found that a predictor of condom use was women's perception of closeness to the partner [65]. Yet, when considering the risk of infection, women had a sense of shared destiny and fatalism. Trust and love in romantic relationships translated into inconsistent condom use and an increased sense of security as women only had condomless sex with their partner. The likelihood of transmission was often perceived as unavoidable as part of their relationship and drug-using lifestyle [59]. Embarrassment talking about sex and difficulties negotiating condom use with intimate partners also hindered condom use [58].

Among women engaging in transactional sex, condoms were used to emotionally differentiate sexual encounters with clients and non-clients. Whereas condoms were used with clients, condomless sex was only reserved for romantic relationships [53]. In fact, love and trust were negatively correlated with never or rarely using condoms with clients in the previous month [77].

Gender Roles and Gender-Based Violence

Most women reported having experienced physical and sexual violence by men, which significantly increased sexual risks such as having condomless sex [56, 64]. Physical violence was often interlinked with sexual violence, and sexual violence most commonly involved condomless sex. Surprisingly, another study found a non-significant relationship between condom use and experiencing sexual violence [71]. Gender-based violence was rooted in gender roles and power dynamics between men and women, in which men were dominant over women. Some women were opposed to losing power and taking a submissive role in relation to men [56, 59]. One strategy used by some women as a way to overcome their vulnerable position was to use condoms with casual and steady sexual partners [59].

Substance Use

Alcohol Use Using alcohol was associated with a decreased frequency in condom use [62, 65]. The evidence regarding the impact of alcohol use before sex among women in transactional sex was contradictory. Two studies suggested that alcohol use before sex was not found to be a predictor of condom use [52, 60]. However, the findings from another paper indicated that alcohol use before sex and weekly alcohol consumption were significantly and negatively associated with consistent condom use with both regular and casual clients [52]. The frequency and quantity of alcohol use were significantly and positively associated with using condoms after using drugs [60]. This finding contrasts with another study, in which weekly alcohol use was found to be significantly and negatively associated with condom use with transactional sex clients [52].

Drug Use Condom use was found to be marginally and positively associated with polydrug use [62]. Condomless sex was more likely among women who used heroin with sexual partners [74]. A higher number of needle-sharing partners was related to condomless sex [62].

[5] Using condoms for all sexual encounters throughout the whole sexual act, or for any sexual activity.

Transactional sex appeared to be associated with a decreased likelihood of condom use when using drugs [51, 52, 65]. Among transactional sex workers, drug use before sex and daily injecting were negatively associated with consistent condom use [52]. Longer duration and higher severity of drug use were positively correlated with inconsistent condom use and general HIV-related risk [51]. Another study indicated that self-reported severity of heroin and cocaine dependence, and the use of condoms for vaginal sex with transactional sex clients were not significantly correlated [60]. There was also a non-significant association between typical doses of heroin and cocaine, and condom use with clients, nor between typical doses and transactional sex participation [60]. In addition, no association was found between frequency (days per week) of heroin or cocaine use and condom use with clients [60].

Transactional Sex

There were no significant differences in condom use between women engaging in transactional sex and those who did not [67]. Some women were unwilling to have condomless sex with clients for more money [60]. Other women involved in transactional sex reported to be in a more vulnerable position to refuse condomless sex with clients [56, 57, 59]. In some cases, transactional sex workers engaged in condomless sex to avoid losing clients over other transactional sex workers. Women were usually offered larger amounts of money to have condomless sex with clients, which could result in a higher likelihood of having sex without using condoms [55]. Also, even though women selling sex generally had to negotiate condom use as part of the exchange [57], some women resisted carrying condoms as they were afraid of being identified as transactional sex workers by the police and have legal problems [58]. Women working in indoor venues (i.e., bar, hotel or brothel) were significantly more likely to use condoms consistently with both regular and casual transactional sex clients, compared with women working outdoors (i.e., street, clients' vehicles, shooting galleries, other public spaces) or in low-price guest houses [51, 52]. Positive interactions with clients facilitated condom use [57], although some women did not use condoms with trusted regular clients [57].

Partner Characteristics, Partner's Drug Using Patterns, and Context of Sex

Several barriers to condom use were related to characteristics of sexual partners. Known health status, personal characteristics (e.g., marital status), physical appearance (i.e., age, attractiveness and apparent hygiene), and sexual history were associated with condom use and seemed to lead women to refuse certain sexual acts such as anal or oral sex with non-clients [54, 55] and clients of transactional sex [57]. Women expressed how some men insisted on having condomless sex as they felt that condoms reduced sexual pleasure and were inconvenient [58]. Moreover, it was more unlikely for women to use condoms when the sexual partner had similar health conditions to them, denied being HIV positive or when women perceived partners as 'similar to me' [55].

Self-reported condom use with transactional sex clients was higher when women had vaginal and anal sex, and less likely for oral sex and masturbation [60]. Condom use was also found to be more likely when the partner or woman performed oral sex and, although non-significant, sex occurred at the woman's home or on a special occasion (e.g., birthday, anniversary) [65]. Other predictors of condom use were having had sex with the same sexual partner in the past, length of time women knew the partner, and having sex with a steady or casual partner (only with a steady partner in multiple regression analyses) [65]. However, most women reported to 'never' use condoms with non-clients in another study [60]. Condom use was also hindered when condoms were unavailable [55]. Besides, there was a non-significant relationship between condom use and receiving social support from a sex partner [74].

Condom use and having needle-sharing partners were positively associated [62]. There was no significant association between having transactional sex clients who injected drugs and condom use [71]. However, condomless sex was associated with having sex with men who injected drugs, when these were not transactional sex clients [50, 61, 62]. In romantic relationships formed by a person who injects drugs (PWID) and a person who does not inject drugs (PWNID), condoms were generally used if the PWID in the relationship was HIV positive and the PWNID was HIV negative [55]. In sexual relationships between a PWID and a person who does not use drugs, knowing the partner's drug using practices was key for HIV infection. When non-using women were not aware of the partner's drug using practices, they seemed to be more likely to have condomless sex. However, HIV risk concerns increased when women knew that their partner was injecting drugs. In order to avoid partner's concerns and continue having condomless sex, some drug users hid their drug using practices and health status, which increasingly heightened the risk of infection [59]. On the other hand, disparities on sexual desire were common in PWID-PWNID relationships. In this context, the increased sexual desire of the PWNID led to the rejection of condom use, as a way for the PWID partner (most often men) to please their partner [59].

Preferences, Negotiation and Availability of Condoms

Condom use was facilitated when it was discussed, and especially when women were more willing to use condoms. Also, when both partners agreed on either using condoms or the partner insisted on using condoms [65]. Lack of skills using and negotiating condom use, dislike of condoms, discomfort [61, 65] and loss of pleasure using condoms were common reported barriers to condom use [65]. Other barriers were that using condoms made sex less intimate, either women or their partners did not feel like using condoms, a partner got angry about using condoms, and when the partner refused to use them [65]. Another study however found a non-significant relationship between condomless sex and having a partner insisting on not using condoms [71]. Condom use was also hindered when partners agreed on not using condoms, sex was unplanned, women could not afford to buy condoms [65], and condoms were unavailable [55, 61, 65]. However, another study suggested that there was no significant association between access to free condoms and consistent condom use [52]. On the other hand, some women expressed discomfort when negotiating condom use. This discomfort appeared to be caused by the fear of offending their partners when suggesting using condoms, and being afraid of getting hurt. These difficulties in negotiating condom use were a barrier to having sex with a condom [61].

Transactional Sex

Factors associated with selling sex were socio-demographics, gender roles and gender-based violence, and substance use.

Socio-demographics

Age There was conflicting evidence regarding the relationship between age and transactional sex. Whereas one paper indicated that these were correlated [50], another suggested a non-significant correlation [75].

Education As for age, there was contradictory evidence on the relationship between education and transactional sex. Graduating from high school was found to be negatively correlated to transactional sex [62]. This relationship was however found non-significant in another paper [75].

Ethnicity The likelihood of engaging in transactional sex was higher among Black women, compared to White, Hispanic and women from other ethnicities [50]. In another study, ethnicity was not found to be significantly associated with transactional sex, even though Indigenous Canadian women were less involved in transactional sex [49]. Compared to Black women, White women had more transactional sex clients [69]. Black women were, on average, older the last time they sold sex [69].

Sexual Orientation Both bisexual and lesbian women were more likely to engage in transactional sex, compared to heterosexual women [72]. The engagement in transactional sex was also higher among women who currently had sex with women (CSW), followed by women who had past sexual experiences with women (PSW) and women who never had sex with women (NSW) [68].

Marital Status Single women were more likely to have sold sex, compared to married women. This was significant when looking at the impact of emotional neglect, emotional abuse and physical neglect on transactional sex practices [75]. Extramarital sex was more likely among married women who were selling sex, compared to married women who did not engage in transactional sex [67].

Housing Conditions Being in unstable housing was more prevalent among women involved in transactional sex, who also lived in more deprived urban areas [49].

Employment and Financial Aspects Women who engage in transactional sex were more likely to have another job and were considered to be unemployed [67]. Although non-significant, there were associations between having two or more daily clients in the previous 2 weeks, and perceiving economic pressure due to being in debt, the need to support family members and drug use [51].

Legal Involvement A significant relationship was found between having been in jail in the previous 6 months and transactional sex [49].

Gender Roles and Gender-Based Violence

Socially constructed gender roles and power dynamics in which men are dominant over women were associated with engaging in transactional sex [56]. In order to avoid assuming a submissive role in relation to men, some women obtained drugs and supported themselves through transactional sex [56].

On the other hand, experiencing physical and/or sexual violence was positively associated with engaging in transactional sex [54, 63, 64]. Physical and sexual violence were associated with having had a HIV-positive partner in the previous 30 days [64]. Specifically, childhood abuse was significantly correlated with transactional sex [64]. Another study found that childhood physical and sexual abuse did not increase the likelihood of being involved in transactional sex as an adult among Black women [75]. Only the severity of emotional and physical neglect, and emotional abuse were associated with an increased likelihood of transactional sex among Black women [75]. No form of abuse was significantly associated with transactional sex among White or Hispanic women [75].

Substance Use

Drug Use Injecting drug use was associated with engaging in transactional sex [50, 66, 67, 76, 78]. In one of the studies, this relationship was found to be significant for non-White women only [50]. The primary drug of use was not a significant predictor for transactional sex practices [75]. Data from one of the included studies indicated that severity of drug dependence was significantly related to having two or more transactional sex partners in the week before taking part in the study [51]. It is important to highlight that no difference was found in this study between self-reported severity of dependence between women who did and did not engage in transactional sex [60]. Other studies found that heroin use was marginally higher among women engaging in transactional sex, although cocaine and crack use was more frequent among women involved in transactional sex [49]. Women who sold sex had been using drugs for a longer time, compared to women who did not engage in transactional sex [66]. Nonetheless, these two studies [49, 66] did not find significant associations between substance use and sexual practices. Sex was generally exchanged for money or drugs and, in some cases, to sustain the partner's drug habits [53, 56, 59]. Sex-for-drugs exchanges were more common when women experienced withdrawal symptoms, as transactional sex was an accessible drug-seeking behaviour. Men often took advantage of women's addiction and offered drugs in exchange for sex [56, 57, 59]. Women were also less selective with clients when they experienced withdrawal symptoms [60]. Having withdrawal symptoms was correlated with self-reported severity of dependence upon heroin [60]. Women would often use drugs before transactional sex as a coping mechanism and emotional barrier towards transactional sex. Using drugs before transactional sex increased women's sexual health risks [56, 57, 59].

Sexual Violence

Factors associated with experiencing sexual violence were socio-demographics, gender roles and gender-based violence, substance use, transactional sex and partner characteristics, partner's drug using patterns and context of sex.

Socio-demographics

Ethnicity and Country of Origin Among women engaging in transactional sex in Mexico, those born in the US who spoke English were more likely to report sexual violence [71].

Gender Roles and Gender-Based Violence

The high threat of violence led women to take a subordinate role and to rely on men for protection from violence [56]. Women reaching for protection constructed relationships with men based on exchanging resources [56]. In the context of these relationships, the role of women was to attend living and drug use expenses [56, 59], whereas men were expected to offer safety. However, men did not always provide women with protection and were often abusive towards women themselves. Conflicts with partners were associated with drug distribution and with men's sexual difficulties [56]. Women often felt '*used for sex*' and stigmatised by men as, because of their drug use, women were regarded as '*easy*' and worthless [59]. Women then reported that they became even more vulnerable to sexual and physical violence and exploitation, from both their partners and other men [56, 59]. Those who were involved in transactional sex often reported having partners insisting on having sex or condomless sex, which was associated with sexual violence [71]. Among women engaging in transactional sex, those experiencing sexual violence were more likely to have a history of rape [71].

Substance Use

Drug Use Women involved in transactional sex were more likely to experience sexual violence when they used drugs with clients [71].

Transactional Sex

Selling sex made women particularly vulnerable to sexual and physical violence, and consequently increased sexual health risks [54, 56, 57, 59]. In this context, women's exposure to violence [56, 57] and sexual health risks was particularly heightened [59]. Despite women's high risk for HIV, sexual health concerns were less of a priority compared to other dangers of the 'fear culture' in which women lived [56]. Even though some women engaged in protective strategies (e.g., having regular clients, offering oral sex rather than vaginal/anal sex, resorting to stealing, working legally, and sometimes relying on welfare) to decrease these risks [56, 57], they were still the target of violent assaults [56]. Those women who reported cases of gender-based violence were disregarded by the police, which contributed to women's feelings of powerlessness and the perpetuation of the constant threat of violence [56], and consequent sexual health risks.

Women involved in transactional sex usually experienced very poor and unsafe working conditions, which made it difficult for women to be selective with clients, to maintain good hygiene, and to avoid coercive encounters with

clients [55]. Transactional sex in hotels or motels, living and working in the same location, and reports of bad/extremely bad working conditions were associated with an increased likelihood of reporting sexual violence [71]. The association between location and working conditions were non-significant in multivariate statistical analyses [71]. Women who had their transactional sex earnings administered by a partner, and those having to pay a manager or a pimp were more likely to have experienced sexual violence [71]. The relationship between sexual violence and having to pay managers or pimps was however not significant [71]. Also, the risk for HIV was related to the position of women engaging in transactional sex in the street hierarchy, where women working for a pimp were the most vulnerable as they usually worked in exploitative conditions [56]. Although some interactions with clients were positive, others turned out to be violent and coercive. In order to prevent violent situations, women involved in transactional sex preferred working with regular clients [56, 57].

Partner Characteristics, Partner's Drug Using Patterns, and Context of Sex

Women engaged in transactional sex were more vulnerable to experiencing sexual violence when they had drug-using (PWID and PWNID) clients, and more non-regular clients [71].

Sexual Activity

Sexual activity included the number of sexual partners, initiation of sex, and general frequency of sexual activity. There were various factors identified to be related to sexual activity. These were socio-demographics, gender roles and gender-based violence, substance use, and transactional sex.

Socio-demographics

Age According to the data of one of the included papers [66], women who initiated sex at a younger age were more likely to have multiple sexual partners.

Ethnicity African American women were more likely to have multiple sexual partners, followed by acculturated Latinas, and compared to low acculturated Latinas [61]. Compared to Black women, White women had their first sexual encounter at a younger age [69].

Sexual Orientation CSW initiated sex at a younger age, had more than one male sexual partner in the previous 6 months, and reported having had sex daily in the past 6 months, compared to PSW and NSW [68]. Also, CSW were more likely to have vaginal sex more than once a week, oral sex with casual partners, and having had anal sex [68]. PSW reported to engage in oral sex more than CSW and NSW [68].

Housing Conditions Women who were cohabiting were less likely to have more than one sexual partner, compared to women who were not cohabiting [50]. Women who were cohabiting were more likely, than those who were not, to have anal sex [50].

Gender Roles and Gender-Based Violence

No significant associations were found between recent partner violence and having had sex with more than one partner in the past year [64].

Substance Use

Drug Use Having multiple sexual partners was significantly correlated with higher drug injecting [50, 66] and crack use [76]. The relationship between number of sexual partners and drug injecting was significant for non-White women only in one of the studies [50]. Moreover, women were more likely to engage in a wider variety of sexual practices with clients after taking heroin and cocaine [60].

Transactional Sex

Overall, women who sold sex had more sexual partners in the previous year and in their lifetime, compared to women who did not engage in transactional sex [62, 67]. Women who worked in hotels and in saloons and massage parlours had more clients than those working in other settings [51]. Women involved in transactional sex were also more likely to have had their first sexual experience at a younger age [67]. Women engaging in transactional sex who experienced sexual violence were younger and had initiated transactional sex at a younger age, compared to those who did not report sexual violence. This relationship was however non-significant [71].

Type and Characteristics of the Sexual Partner

There were very few studies and a lack of robust data on the factors correlated with the type and characteristics of a sexual partner. The factors identified were socio-demographics, transactional sex, number of sexual partners, gender roles and gender-based violence, and substance use.

Socio-demographics

Ethnicity White women were more likely than Black women to have a sexual partner who injected drugs [50]. Although

non-significant, White women were younger the last time they had a steady partner [69].

Sexual Orientation Heterosexual women reported less casual sex, compared to bisexual and lesbian women. Bisexual women were more likely to have recent casual sex, and lesbian women were less likely to have sex with steady partners, compared to heterosexual women [72]. CSW were less likely to have steady male partners [68], and more likely to have vaginal sex more than once a week, oral sex with casual partners, having had anal sex, and having had a sexual partner diagnosed with an STI. In contrast with CSW and NSW, PSW engaged in oral sex more than four times a week [68].

Transactional Sex

Selling sex was associated with women being more likely to have sex with strangers or a friend, rather than with a boyfriend or husband [67]. They were also less likely to have a regular sexual partner [49].

Number of Sexual Partners

The evidence available indicated that the number of male sexual partners was positively correlated with the number of needle-sharing partners [62].

Gender Roles and Gender-Based Violence

There were no significant associations between recent partner violence, and having sex with a PWID, having sex with a partner who had sex with someone else in the past year, and having sex with a partner who had an STI in the past year [64].

Substance Use

Drug Use There were very few and robust data on the relationship between drug use and the type and characteristics of sexual partners. The evidence available suggested that crack use and having a partner that is a PWID were not associated [76].

Drug Use with Sexual Partners

Socio-demographics and gender roles and gender-based violence were associated with women using drugs with sexual partners.

Socio-demographics

Ethnicity Compared to Black women, White women reported higher use of drugs before and after transactional sex, and higher use of injecting drugs with steady and casual partners [69]. There was a trend for Black women to use more non-injecting drugs when engaging in transactional sex [69].

Gender Roles and Gender-Based Violence

A non-significant relationship was found between experiencing sexual violence and an increased likelihood of using drugs with clients, among women involved in transactional sex [71].

Discussion

The main aim of this review was to identify the factors associated with sexual risks and risk of STIs and BBVs among WHOD. A secondary aim was to determine the nature and quality of the evidence available.

Aim 1: Factors Associated with Sexual Risks

A wide range of factors, from socio-demographic characteristics to social contexts of violence and power dynamics between women and men, were found to be associated with sexual risks among WHOD. The interplay of these factors remains uncertain, and there were a number of studies presenting contradictory findings. This indicates that there is currently a lack of strong evidence on the links between most factors and sexual risks. This point is further discussed in Aim 2 of the Discussion section. The most salient factors and implications for future research and service development are discussed below.

Gender-Based Violence: Power Inequities and Human Rights

Despite the ambiguity of the findings, the evidence between experiencing violence and sexual risks was found to be fairly robust. A relationship emerged between violence and engaging in transactional sex, having condomless sex, and having high risk sexual partners. Consistent with previous research [80], gender-based violence (GBV) was related to gendered power dynamics in sexual relationships [81]. Men exerted power over women in order to obtain resources from them (i.e., money or drugs), and forced women into sex and transactional sex. Women, especially those involved in transactional sex, were also often exposed to random violent physical and sexual assaults. In fact, rates of interpersonal violence among drug users have been found to be between 50 and 70% [82, 83], with the severity of substance use associated with the severity of violence [84–87]. Women are particularly at risk of intimate partner violence [88], which is related to condomless sex [89] and higher prevalence of

HIV infection [90]. Living in a context of abuse increases women's susceptibility to violence, deterring women from prioritising their sexual health, and making it impossible for them to prevent violent assaults. Experiencing psychological and/or physical violence was found to be a barrier to condom use, as women became afraid and disempowered to negotiate condom use [88, 91]. Women feared violence if they suggested condom use. Also, in situations of sexual violence, condomless sex was generally imposed by the aggressor so women had neither control over the assault nor their sexual health. Most of the data available were related to physical and sexual violence, even though emotional violence might be more widespread and might also have a strong impact on women's exposure to sexual risks throughout their lives.

Overall, it is crucial that GBV is understood in the context of culturally constructed gender roles and power inequities experienced by women in relation to men [92–96]. According to Heise's ecological framework for violence against women [97], violence occurs and it is influenced by gendered factors across a social ecology at different levels (individual, interpersonal, community and societal) [93]. Structural violence should also be acknowledged, as GBV is embedded in social systems and institutions [92, 93]. However, most strategies to prevent gender-based violence have focused on individual behaviours and health outcomes, rather than the elimination of GBV as a violation of human rights rooted on unequal power dynamics. As previous research has suggested, there is the need to equate the power relations between women and men and promote community-level changes, shifts in public discourse, and to focus on shaping social norms across all social ecology levels (i.e., individual, social, institutional, cultural and political level) [93, 95, 96]. Future research should then account for the different realities and multidimensionality of GBV to comprehensibly understand how it impacts the sexual health and wellbeing of WHOD.

Transactional Sex: Social Neglect and Structural Violence

Contrary to what previous research has suggested [98], no clear relationship was found between condom use and transactional sex with either clients or non-clients in the quantitative studies. Qualitative data suggested that some women might agree on having condomless sex in exchange for larger amounts of money, and to avoid losing clients to other transactional sex workers. Violent and coercive interactions with clients were found to hinder negotiating condom use as women were often coerced or forced to have condomless sex. Transactional sex exchanges were riskier when women were experiencing withdrawal symptoms, as the urge to get money to use drugs prevented them from being selective with clients, and women were more vulnerable to being sexually exploited by clients. Transactional sex in poor conditions and in outdoor venues (e.g., street) also increased women's vulnerability to sexual risks and violence, as well as being more exposed to social stigmatisation and legal problems [99]. Transactional sex in indoor venues (e.g., hotel) provided women with more opportunities to negotiate condom use, avoid violence and refuse unwanted sexual requests [100]. Transactional sex was also positively associated with having multiple sexual partners—which was linked to a decrease in condom use—, initiating sex at a younger age, and being less likely to have steady sexual partners. These associations, and women's heightened vulnerability to violence, might explain the poorer sexual health of women engaging in transactional sex [101].

The data around transactional sex and sexual health risks suggest that transactional sex should not be treated as a sexual risk practice but rather a situation in which women are more exposed to sexual risks. These risks are often rooted in the stigmatisation and discrimination of transactional sex workers [102–108] that, together with gender inequities, might be linked to women's vulnerability to physical and sexual violence by clients. As for any other women, experiencing physical and sexual violence exposes transactional sex workers to sexual health risks. Efforts to prevent STI/BBV transmission among transactional sex workers should then go beyond an individual-level focus and avoid pathologising, victimising and neglecting the needs of this group of women. Structural violence should be considered and addressed in relation to transactional sex. This directly relates to the ongoing debate about the need to revise current outdated legislations that criminalise transactional sex, and contribute to transactional sex workers' vulnerability to poorer health, exploitative conditions and violence [106, 108–111].

HIV Status: What About Stigma and Discrimination?

HIV positive individuals are more likely to use condoms once they are aware of their HIV status [112, 113]. Condomless sex among HIV positive individuals seems to be associated with the increased effectiveness of new treatments for HIV [114]. Sexual transmission of HIV among serodiscordant couples has also been found to be low [115], suggesting high rates of condom use and effectiveness of antiretroviral therapy. Data from this review suggested a tendency for HIV positive women to be more exposed to sexual risks, including sexual violence, compared to HIV negative women. In fact, previous research has drawn attention to the difficulties that HIV positive people experience to use condoms [116–118], and how HIV positive women are susceptible to some high-risk sexual practices after experiencing sexual violence in the context of social conflict [119].

In this review, condom use was found to be encouraged when women's HIV status was different to their partner's.

Self-reported condom use was also facilitated when women felt safer from STI/BBV transmission by using condoms. Low risk awareness (i.e., believing—or knowing—that partners were STI/HIV negative, and/or believing that they could not transmit or get transmitted HIV) was related to women being less likely to use condoms. In contrast, having had a free HIV antibody test was found to be linked to inconsistent condom use among women engaged in transactional sex. An explanation for this could be that testing might decrease risk awareness, and lead women to have condomless sex. Women with a higher knowledge of HIV/AIDS had less sexual encounters with clients. This suggests that increased knowledge of HIV/AIDS may make women more aware of the sexual health risks they could be exposed to.

Other aspects of HIV transmission, such as the impact of stigma and discrimination, and the fear of diagnosis and disclosure of HIV/AIDS status were not encompassed in the papers included in this review. Stigma and discrimination have been widely studied in relation to HIV/AIDS [120–122] and STIs [123]. They are both barriers for prevention and treatment of HIV [120, 121], and tackling them is crucial for the effectiveness of STI/HIV preventive strategies [123, 124]. Besides, it is important to acknowledge that WHOD experience stigma and discrimination due to the intersectionality of different characteristics of their identity (i.e., female gender, race, sexual orientation, drug use, engagement in transactional sex, homelessness). Hence, stigma and discrimination should not be seen as unidimensional but rather as multidimensional and complex social and structural phenomenon [102–104, 125] that should be addressed in STI/BBV policies and services.

Sexual Orientation: Addressing Social and Health Inequities

Women from the Lesbian, Gay, and Bisexual (LGB) community experience social and health inequities [126–133]. These comprise poorer mental health [128–132], substance use [129–131] and physical health including STIs [133]. Health inequities can be explained by the extended heteronormality in the healthcare system (and society), an unequal access to health services, and health professionals' negative attitudes [126, 127]. Consistent with recent research [126, 134], the findings from this review suggest that LGB women experience higher sexual risks, in comparison with their heterosexual counterparts. These health inequities should be recognised and integrated in STI/BBV preventive strategies, in order to promote social justice and address the specific vulnerabilities and inequities experiences by LGB women.

Partner Characteristics, Preferences and Negotiation of Condom Use: Missing the Role of Culture

Several papers presented self-reported barriers and facilitators of condom use in relation to partner's characteristics such as physical appearance, attractiveness, sexual health history, drug practices/history, and health status. These barriers are consistent with previous research on the barriers to condom use [135–138]. Other barriers and facilitators were linked to preferences, negotiation, skills and availability of condoms. Condom use was facilitated when women discussed their use with their partners, and when there was an agreement on using condoms. Women were more likely to report condom use if they were feeling in control over the decision of having sex with condoms. In turn, using condoms increased the feeling of personal responsibility among women. Other barriers to condom use were being unskilled in negotiating and using condoms, perceiving a decrease of sexual pleasure when using condoms, and women's or their partner's dislike of condoms. Some women reported feeling uncomfortable talking about sex, and some partners would directly refuse sex with condoms, a situation that created a challenge for women to negotiate condom use and care for their sexual health. Having a drug-using partner was associated with condomless sex. Condoms were less likely to be used when sex was not planned as condoms were potentially not available in that situation. Moreover, condomless sex was common in situations in which condoms were not available or women could not afford to buy them.

These findings are consistent with previous research [139–142], and they relate to the positive impact of self-efficacy and communication on condom use, as well as the importance of empowering women to negotiate and gain control over sexual health decision-making processes. Also, partner characteristics, preferences and decision-making should be considered as factors associated with condom use. Other individual-level (e.g., personality and cognitive processes) and social correlates (e.g., social norms and cultural perspectives on condoms) are not reflected in these findings and these should be further explored [143]. The impact of culture in health and health behaviours has been especially neglected within health services research and health interventions [144–147]. Culture plays a crucial role in the use of condoms since attitudes and taboos in relation to sex and sexual health, social norms, gendered social roles and power dynamics also shape women's and their partners' condom use [148, 149]. Furthermore, it is important to consider that all the included papers in this review exclusively researched on male condoms. Research and strategies for STI/BBV prevention should abandon the supremacy of male condom use over promoting the use of both female and male condoms. This might allow women to counteract the unequal power

dynamics between women and men, by increasing women's control of their sexual health [150–152].

Substance Use: Contextual Factors of Drug and Alcohol Use and Sexual Risks

Among women who did not engage in transactional sex, the relationship between condom use and substance use was unclear. The number of sexual partners and scope of sexual acts were however higher when women used drugs. The use of condoms was also related to the sexual partner's drug using practices. Condomless sex seemed to occur among steady relationships formed by a person who does not use drugs and a PWID, as well as in relationships between a PWNID and a PWID. Substance use, and particularly injecting drug use, was related to engaging in transactional sex. Transactional sex was more common when women experienced withdrawal symptoms, a situation when women were also less selective with their clients. In turn, drugs were often used to cope with transactional sex, and using drugs with clients was associated with a higher vulnerability to violence.

Sexual risks seemed to be associated with the contexts of drug using practices, rather than the use of substances per se. Women often engaged in transactional sex to support their drug use—and sometimes their partners'—and this was more common when in withdrawal. On some occasions women would recur to using drugs to cope with transactional sex events. Data suggest that drug use maintained the engagement in transactional sex, and being involved in transactional sex maintained women's drug use. This made women more vulnerable to experiencing violence, and significantly increased sexual health risks [60, 106, 153–157]. Providing alternative opportunities (e.g., assist women accessing benefits) and empowering women might enable them to break this pattern. On the other hand, decisions on condom use seemed to differ depending on women's and their partners' drug using practices. For this reason, it is key to acknowledge the dynamics between women's and their partners' drug using patterns, rather than considering them in isolation. Sexual risks associated with substance use should then be considered from a broader social ecological framework, so that socio-structural factors of substance use are accounted for.

Love and Trust: Intimacy and Condom Use

Love and trust were common in steady relationships. These feelings hindered condom use with partners, and facilitated using condoms with clients among women engaging in transactional sex, as condoms were perceived as a barrier for intimacy. In turn, reduced love and trust made women less likely to use condoms with clients [158–162]. Condoms were used for transactional sex as an emotional barrier and coping mechanism. Among transactional sex workers, condomless sex was reserved for romantic relationships to reach intimacy and show love and trust in their partners and in the relationship. These data provide evidence of the importance of multilevel analyses of emotional dynamics in relationships with transactional sex clients and non-clients among WHOD, and the impact of these factors on sexual practices and STI/BBV risk [163].

Women and Motherhood: Any Woman's Preferences and Needs

Following previous research, data from this review suggested that women who wanted to have a baby were likely to engage in condomless sex. Those who wanted to prevent pregnancy used condoms more consistently [164]. Sterilised women were less likely to report condom use [165–167], which may indicatethat women might be more aware and inclined to prevent pregnancy and underestimate the risks of infection. It is important to acknowledge that these findings can be extrapolated to any other women. Even though WHOD might have different needs compared to other groups of women, they should not be pathologised and their needs and rights as *women* should not be neglected. Likewise, it should be recognised that some of the factors identified in this review are not necessarily related to women's drug using practices but common to any woman.

Aim 2: The Nature and Quality of the Evidence

Study Design and Methodology

It is important to highlight that the direction and role of the factors identified were unclear in most cases. The network of interrelations between factors and outcomes is also imprecise and inconclusive. An explanation for this is that most studies were cross-sectional, and the few longitudinal studies did not focus on exploring the impact of factors on sexual risks over time. For this reason, the findings presented in this review cannot be considered *determinants*, but rather *factors* that are related (or not) to certain sexual risks. The evidence found is highly heterogeneous due to the extensive methodological differences between studies, and the variety in the samples and other study characteristics, making it difficult to synthesise the data. Even though all papers comprised WHOD, the characteristics of the samples were rather diverse. For instance, some studies exclusively included incarcerated women, PWID, or women engaging in transactional sex.

Data were mainly self-reported, which may lead to recall biases and a potential gap between reported and actual behaviour [168, 169]. It also suggests that women might

have under-reported sexual risks leading to biased outcomes. It is then clear that merging all data together is not only challenging, but it is important to be cautious and not interpret the findings as from a homogeneous dataset. Future research should include longitudinal and experimental studies, in order to explore the direction of the impact of the identified factors on sexual risks, and compare such findings between different groups (e.g., transactional sex workers vs non-transactional sex workers) and women in different countries and cultures. Also, future studies should carefully approach and address research biases (e.g., self-report bias), and aim at building more homogeneous and comparable evidence.

On the other hand, it remains unknown whether quantitative papers reported all null findings. Criticism of the *p* value and reporting 'statistically significant results' only is nothing new [170], and has even led to the ban of 'null hypothesis significant methods' in scientific journals [171]. Taking these critiques on board, and following the example of some of the papers included in this review, future research should aim at reporting non-significant results. This could help reach a higher consistency and robustness in the evidence available, as well as to determine which areas need further investigation.

Use of Theory and Scope of the Research

The lack of strong theoretical and methodological approaches in the included papers is concerning. Theories are a systematic way of understanding behaviour and different phenomenon, and serve as tools to explain and predict events or situations by specifying relations among factors. They are key to understand the determinants of health and factors associated with sexual risks, as well as to suggest ways to develop effective behaviour change methods [30, 172, 173]. Future research could incorporate theory to bridge the gap between research and practice, aiming to improve the development and implementation of public health interventions for preventing STIs and BBVs.

Social ecological approaches to sexual risks are needed in order to address social and health inequities among WHOD, and develop effective and inclusive STI/BBV preventive strategies [13, 42–45]. This will go beyond individual risk and intra/interpersonal factors and explore the wider determinants of health and socio-structural factors (i.e., the wider social, economic, political and cultural context). Most research included in this review has been conducted in developed western countries, where the social perspectives on sexuality and gender dynamics might differ vastly from those ones in other countries and cultures. Even though exploring cultural [29] and religious [174–176] factors are crucial for STI/BBV prevention, there is no evidence on how culture and religion have an impact on sexual risks among WHOD. Punitive laws, policies and practices violating human rights (e.g., deportation of HIV-positive persons), and the criminalisation of transactional sex and drug use are still a reality in some countries [5, 7, 177]. These have been pinpointed to be powerful barriers to STI/BBV prevention, highlighting the importance to consider country-specific social, economic, environmental and political realities [178]. Therefore, a more comprehensive approach would help us to better understand the interplay of factors that lead to sexual (health) risk among drug-using women.

Beyond the Male Condom and HIV

None of the publications included explored the use of female condoms or other barrier methods such as the dental dam, nor the use of pre-exposure prophylaxis (PrEP). All research included in this review exclusively appraised the use of male condoms. Even though research on the female condom and dental dam is limited, research has highlighted the potential benefits of these barrier methods [150, 179–183]. Likewise, advances on the use of pre-exposure prophylaxis (PrEP) seem to be promising in preventing HIV [184–186]. Considering these approaches and methods of prevention will be key for future research and to improve STI/BBV preventive efforts.

Finally, little attention has been paid to STIs and other BBVs in comparison with HIV. Future research should also go beyond HIV infection to provide a wider picture of how STI/BBV-related factors have an impact on WHOD's sexual health and wellbeing.

Conclusions and Limitations

This is the first systematic literature review that presents a comprehensive overview of the evidence available on the factors of sexual risks among WHOD, in relation to STI/BBV sexual transmission. Synthesising the data presented several challenges that highlighted the lack of consistency in the methodology and outcomes of the included studies. This review was limited by only including English language papers, self-reporting and reporting biases, and the potential incomplete retrieval of relevant research. The search may have limited the findings as structural factors, partly because policy documents were not purposively searched for. Also, merging qualitative and quantitative data, studies with different samples and methodologies, and the limited use of theory, limited the generalisability of this review.

Overall, this review highlights the interrelation of multiple factors associated with sexual risks and the risk for STIs and BBVs among WHOD. It has also identified crucial implications for future research that might serve as guidance

for the development of health promotion strategies to tackle STIs, HIV and other BBVs among WHOD.

Acknowledgements This work was supported by a Ph.D. Studentship granted to L. Medina-Perucha by the University of Bath. The authors would like to thank the contributions of Prof Julie Barnett to the development of this paper. The early findings of this review were presented at the STI&HIV World Congress in Rio de Janeiro (Brazil) in July 2017. We are thankful for feedback from the delegates.

Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

Human and Animal Rights This article does not contain any studies with human participants or animals performed by any of the authors.

Informed Consent For this type of study formal consent is not required.

References

1. Cavanaugh CE, Hedden SL, Latimer WW. Sexually transmitted infections among pregnant heroin- or cocaine-addicted women in treatment: the significance of psychiatric co-morbidity and sex trade. Int J STD AIDS. 2010;21(2):141–2.
2. Des Jarlais DC, Arasteh K, McKnight C, Hagan H, Perlman DC, Semaan S. Associations between herpes simplex virus type 2 and HCV with HIV among injecting drug users in New York City: the current importance of sexual transmission of HIV. Am J Public Health. 2011;101(7):1277–83.
3. Edelman NL, Patel H, Glasper A, Bogen-Johnston L. Sexual health risks and health-seeking behaviours among substance-misusing women. J Adv Nurs. 2014;70(12):2861–70.
4. Hwang LY, Zack C, Rickman K, Holleman M. Prevalence of sexually transmitted infections and associated risk factors among populations of drug ubusers. Clin Infect Dis. 2000;31(4):920–6.
5. UNAIDS. 90-90-90: an ambitious treatment target to help end the AIDS epidemic. Geneva: UNAIDS; 2014.
6. UNAIDS. Do no harm—health, human rights and people who use drugs. Geneva: UNAIDS; 2016.
7. UNAIDS. On the fast-track to end AIDS: 2016-2021 strategy. Geneva: UNAIDS; 2015.
8. World Health Organization. Sexually transmitted infections (STIs). Fact sheet, August 2016: World Health Organization. 2016. http://www.who.int/mediacentre/factsheets/fs110/en/. Accessed July 2017.
9. World Health Organization. Global health sector strategy on sexually transmitted infections, 2016-2021. Towards ending STIs. Geneva: World Health Organization; 2016.
10. World Health Organization. Global health sector strategy on HIV, 2016-2021. Towards ending AIDS. Geneva: World Health Organization; 2016.
11. World Health Organization. Global health sectors strategy on viral hepatitis, 2016-2021. Towards ending viral hepatitis. Geneva: World Health Organization; 2016.
12. World Health Organization. Combating Hepatitis B and C to reach elimination by 2030. Advocacy brief. Geneva: World Health Organization; 2016.
13. El-Bassel N, Terlikbaeva A, Pinkham S. HIV and women who use drugs: double neglect, double risk. Lancet. 2010;376(9738):312–4.
14. Alves GR, Goulart RA, Lara FI, Lucchese L, Vera I. Inconsistent use of condom in non-injecting illicit drug users. Braz J Infect Dis. 2016;20(2):220–1.
15. Booth RE, Kwiatkowski CF, Chitwood DD. Sex related HIV risk behaviors: differential risks among injection drug users, crack smokers, and injection drug users who smoke crack. Drug Alcohol Depend. 2000;58:219–26.
16. Branson CE, Clemmey P. Heroin use and sexual risk among adolescents in residential treatment. American Psychological Association 2008 Convention. 2008.
17. Elifson KW, Klein H, Sterk CE. Predictors of sexual risk-taking among new drug users. J Sex Res. 2006;43(4):318–27.
18. Hagan H, Perlman DC, Des Jarlais DC. Sexual risk and HIV infection among drug users in New York City: a pilot study. Subst Use Misuse. 2011;46(2–3):201–7.
19. Lee TS, Chen YP, Chang CW. Gender differences in the perceived self-efficacy of safer HIV practices among polydrug abusers in Taiwan. Compr Psychiatry. 2011;52(6):763–8.
20. Strathdee SA, Stockman JK. Epidemiology of HIV among injecting and non-injecting drug users: current trends and implications for interventions. Curr HIV/AIDS Rep. 2010;7(2):99–106.
21. Friedman SR, Mateu-Gelabert P, Ruggles KV, Goodbody E, Syckes C, Jessell L, et al. Sexual risk and transmission behaviors, partnerships and settings among young adult nonmedical opioid users in New York City. AIDS Behav. 2017;21(4):994–1003.
22. El-Bassel N, Gilbert L, Wu E, Go H, Hill J. HIV and intimate partner violence among methadone-maintained women in New York City. Soc Sci Med. 2005;61(1):171–83.
23. Kilpatrick DG, Acierno R, Resnick HS, Saunders BE, Best CL. A 2-year longitudinal analysis of the relationships between violent assault and substance use in women. J Consult Clin Psychol. 1997;65(5):834–47.
24. UNAIDS. HIV prevention among adolescent girls and young women. Putting HIV prevention among adolescent girls and young qomwn on the Fast-Track and engaging men and boys. Geneva: UNAIDS; 2016.
25. Brooks A, Meade CS, Potter JS, Lokhnygina Y, Calsyn DA, Greenfield SF. Gender differences in the rates and correlates of HIV risk behaviors among drug abusers. Subst Use Misuse. 2010;45(14):2444–69.
26. Duff P, Tyndall M, Buxton J, Zhang R, Kerr T, Shannon K. Sex-for-crack exchanges: associations with risky sexual and drug use niches in an urban Canadian city. Harm Reduct J. 2013;10:29.
27. Folch C, Fernández-Dávila P, Ferrer L, Soriano R, Díez M, Casabona J. Erratum to "High prevalence of drug consumption and sexual risk behaviors in men who have sex with men". Medicina Clínica (English Edition). 2016;147(1):47.
28. Mitchell MM, Latimer WW. Unprotected casual sex and perceived risk of contracting HIV among drug users in Baltimore, Maryland: evaluating the influence of non-injection versus injection drug user status. AIDS Care. 2009;21(2):221–30.
29. Airhuhenbuwa CO, Ford CL, Iwelunmor JI. Why culture matters in health interventions: lessons learned from HIV/AIDS stigma and NCDs. Health Educ Behav. 2014;4(1):78–84.
30. Glanz K, Bishop DB. The role of behavioral science theory in development and implementation of public health interventions. Annu Rev Public Health. 2010;31:399–418.

31. World Health Organization. The economics of the social determinants of health and health inequalities: a resources book. Luxembourg: World Health Organization; 2013.
32. Sallis JF, Owen N, Fisher EG. Ecological models of health behavior. 4th ed. San Francisco: Jossey-Bass; 2008.
33. Mayer KH, Pizer HF. HIV prevention: a comprehensive approach. London: Academic Press; 2008.
34. CDC. Morbidity and mortality weekly report (MMWR). Altlanta: Centers for Disease Control and Prevention; 1981.
35. Kral AH, Bluthenthal RN, Lorvick J, Gee L, Bacchetti P, Edlin BR. Sexual transmission of HIV-1 among injection drug users in San Francisco, USA: risk-factor analysis. Lancet. 2001;357(9266):1397–401.
36. Steen R, Elvira Wi T, Kamali A, Ndowa F. Control of sexually transmitted infections and prevention of HIV transmission: mending a fractured paradigm. Bull World Health Organ. 2009;87(11):858–65.
37. Strathdee SA, Sherman SG. The role of sexual transmission of HIV infection among injection and non-injection drug users. J Urban Health. 2003;80(Suppl 3):87–814.
38. Des Jarlais DC, Arasteh K, Perlis TE, Hagan H, Abdul-Quader A, Heackathorn DD, et al. Convergence of HIV seroprevalence among injecting and non-injecting drug users in New York City. Aids. 2007;11(21):231–5.
39. Aral SO, Over M, Manhart L, Holmes KK. Sexually transmitted infections. In: Jamison DT, Breman JG, Measham AR, Alleyne G, Claeson M, Evans DB, et al., editors. Disease control priorities in developing countries. 2nd ed. New York: Oxford University Press; 2006.
40. WHO/UNAIDS. Consultation on STI interventions for preventing HIV: appraisal of the evidence. Geneva: World Health Organization/Joint United Nations Programme on HIV/AIDS; 2008.
41. Trepo C. A brief history of hepatitis milestones. Liver Int. 2014;34(Suppl 1):29–37.
42. Baral C, Logie CH, Grosso A, Wirtz AL, Beyrer C. Modified social ecological model: a tool to guide the assessment of the risks and risk contexts of HIV epidemics. BMC Public Health. 2013;13(1):482.
43. McLeroy KR, Bibeau D, Steckler A, Glanz K. An ecological perspective on health promotion programs. Health Educ Behav. 1988;15(4):351–77.
44. Wellings K, Collumbien M, Slaymaker E, Singh S, Hodges Z, Patel D, et al. Sexual behaviour in context: a global perspective. Lancet. 2006;368(9548):1706–28.
45. Degenhardt L, Mathers B, Vickerman P, Rhodes T, Latkin C, Hickman M. Prevention of HIV infection for people who inject drugs: why individual, structural, and combination approaches are needed. Lancet. 2010;376(9737):285–301.
46. Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. PLoS Med. 2009;6(7):e1000097.
47. Kmet LM, Lee RC, Cook LS. Standard quality assessment criteria for evaluation primary research papers from a variety of fields. Edmonton: Alberta Heritage Foundation for Medical Research; 2004.
48. Altman DG. Practical statistics for medical research. London: Chapman and Hall; 1991.
49. Tyndall MW, Patrick D, Spittal P, Li K, Shaughnessy MV, Schechter MT. Risky sexual behaviours among injection drugs users with high HIV prevalence: implications for STD control. Sex Transm Infect. 2002;78(suppl 1):i170.
50. Mackesy-Amiti ME, Noodram B, Williams C, Ouellet LJ, Broz D. Sexual risk behavior associated with transition to injection among young non-injecting heroin users. AIDS Behav. 2013;17:2459–66.
51. Gu J, Chen H, Chen X, Lau JTF, Wang R, Liu C, et al. Severity of drug dependence, economic pressure and HIV-related risk behaviors among non-institutionalized female injecting drug users who are also sex workers in China. Drug Alcohol Depend. 2008;97:257–67.
52. Gaines TL, Rudolph AE, Brouwer KC, Strathdee SA, Lozada R, Martinez G, et al. The longitudinal association of venue stability with consistent condom use among female sex workers in two Mexico-USA border cities. Int J STD AIDS. 2013;24(7):523–9.
53. Syvertsen JL, Robertson Bazzi A. Sex work, heroin injection and HIV risk in Tijuana: a love story. Anthropol Conscious. 2015;26(2):182–94.
54. Carlson RG. 'Boy' and 'girl': The AIDS risk implications of heroin and cocaine symbolism among injection drug users. Anthropol Med. 1999;6(1):59–77.
55. Albertin-Carbo P, Domingo-Salvany A, Hartnoll RL. Psychosocial considerations for the prevention of HIV infection in injecting drug users. Qual Health Res. 2001;11(1):26–39.
56. Epele ME. Gender, violence and HIV: Women's survival in the streets. Cult Med Psychiatry. 2002;26:33–54.
57. Hansen H, Lopez-Iftikhar MM, Alegria M. The economy of risk and respect: accounts by Puerto Rican sex workers of HIV risk taking. J Sex Res. 2002;39(4):292–301.
58. Lee TS, Fu LA, Fleming P. Using focus groups to investigate the educational needs of female injecting heroin users in Taiwan in relation to HIV/AIDS prevention. Health Educ Res. 2005;21(1):55–65.
59. Lam NT. Drugs, sex and AIDS: Sexual relationships among injecting drug users and their sexual partners in Vietnam. Cult Health Sex. 2008;10(S1):S123–37.
60. Gossop M, Powis B, Griffiths P, Strang J. Female prostitutes in south London: use of heroin, cocaine and alcohol, and their relationship to health risk behaviors. AIDS Care. 1995;7(3):253–60.
61. Nyamathi AM, Lewis C, Leake B, Flaskerud J, Bennett C. Barriers to condom use and needle cleaning among impoverished minority female injection drug users and partners of injection drug users. Public Health Rep. 1995;110(2):166–72.
62. Grella CE, Anglin D, Annon JJ. HIV risk behaviors among women in methadone maintenance treatment. Subst Use Misuse. 1996;31(3):277–301.
63. El-Bassel N, Gilbert L, Schilling RF, Wada T. Drug abuse and partner violence among women in methadone treatment. J Fam Violence. 2000;15(3):209–28.
64. Gilbert L, El-Bassel N, Schilling RF, Wada T, Bennet B. Partner violence and sexual HIV risk behaviors among women in methadone treatment. AIDS Behav. 2000;4(3):261–9.
65. Tortu S, McMahon J, Hamid R, Neaigus A. Drug-using women's sexual risk: an event analysis. AIDS Behav. 2000;4(4):329–40.
66. Gore-Felton C, Somlai AM, Benotsch EG, Kelly JA, Ostrovski D, Kozlov A. The influence of gender on factors associated with HIV transmission risk among young Russian injection drug users. Am J Drug Alcohol Abuse. 2003;29(4):881–94.
67. Wang Q, Lin G. Sex exchange and HIV-related risk behaviors among female heroin users in China. J Drug Issues. 2003;33:119–32.
68. Bell AV, Ompad D, Sherman SG. Sexual and drug risk behaviors among women who have sex with women. Am J Public Health. 2006;96(6):1066–72.
69. Cavanaugh CE, Floyd LJ, Penniman TV, Hulbert A, Gaydos C, Latime WW. Examining racial/ethnic disparities in sexually transmitted diseases among recent heroin-using and cocaine-using women. J Womens Health. 2011;20(2):197–205.
70. Peng EYC, Yeh CY, Cheng SH, Morisky DE, Lan YC, Chen YMA, et al. A case-control study of HIV infection among incarcerated female drug users: impact of sharing needles

and having drug-using sexual partners. J Formos Med Assoc. 2011;110(7):446–53.
71. Goldenberg SM, Rangel G, Staines H, Vera A, Lozada R, Nguyen L, et al. Individual, interpersonal, and socia-structural correlated of involuntary sex exchange among female sex workers in two Mexico-US border cities. J Acquir Immune Defic Syndr. 2013;63:639–46.
72. Iversen J, Dolan K, Ezard N, Maher L. HIV and Hepatitis C virus infection and risk behaviors among heterosexual, bisexual, and lesbian women who inject drugs in Australia. LGBT Health. 2015;2(2):127–34.
73. Miller CL, Spittal P, LaLiberte N, Li K, Tyndall M, O'Shaughnessy MV, et al. Females experiencing sexual and drug vulnerabilities are at elevated risk for HIV infection among youth who use injection drugs. J Acquir Immune Defic Syndr. 2002;30:335–41.
74. Miller M, Neaigus A. Sex partner support, drug use and sex risk among HIV-negative non-injecting drug users. AIDS Care. 2002;14(6):801–13.
75. Medrano MA, Hatch JP, Zule WA, Desmond DP. Childhood trauma and adult prostitution behavior in a multi-ethnic heterosexual drug using population. Am J Drug Alcohol Abuse. 2003;29(2):463–86.
76. Sanchez J, Comerford M, Chitwood DD, Fernandez MI, McCoy CB. High risk sexual behaviors among heroin sniffers who have no history of injection drug use: implications for HIV risk reduction. AIDS Care. 2002;14(3):391–8.
77. Syvertsen JL, Robertson Bazzi A, Martinez G, Rangel MG, Ulibarri MD, Fergus KB, et al. Love, trust, and HIV risk among female sex workers and their intimate male partners. Am J Public Health. 2015;105(8):1667–74.
78. Gu J, Wang R, Chen H, Lau JT, Zhang L, Hu X, et al. Prevalence of needle sharing commercial sex behaviors and associated factors in Chinese male and female injecting drug user populations. AIDS Care. 2009;21(1):31–41.
79. McMillan K, Worth H, Rawstorne P. Usage of the terms prostitution, sex work, transactional sex, and survival sex: their utility in HIV prevention research. Arch Sex Behav. 2018;47(5):1517–27.
80. Campbell AN, Tross S, Dworkin SL, Hu MC, Manuel J, Pavlicova M, et al. Relationship power and sexual risk among women in community-based substance abuse treatment. J Urban Health. 2009;86(6):951–64.
81. MacRae R, Aalto E. Gendered power dynamics and HIV risk in drug-using sexual relationships. AIDS Care. 2000;12(4):505–15.
82. Chermack ST, Fuller BE, Blow FC. Predictors of expressed partner and non-partner violence among patients in substance abuse treatment. Drug Alcohol Depend. 2000;58(1–2):43–54.
83. Chermack ST, Walton MA, Fuller BE, Blow FC. Correlates of expressed and received violence across relationship types among men and women substance abusers. Psychol Addict Behav. 2001;15:140–51.
84. Chermack ST, Grogan-Kaylor A, Perron BE, Murray RL, De Chavez P, Walton MA. Violence among men and women in substance use disorder treatment: a multi-level event-based analysis. Drug Alcohol Depend. 2010;112:194–200.
85. Stuart GL, Moore TM, Elkins SR, O'Farrell TJ, Temple JR, Ramsey S, et al. The temporal association between substance use and intimate partner violence among women arrested for domestic violence. J Consult Clin Psychol. 2013;81:681–90.
86. Friend F, Langhinrichsen-Rohling J, Eichold BH. Same-day substance use in men and women charged with felony domestic violence offenses. Crim Justice Behav. 2011;38:619–33.
87. Maffli E, Zumbrunn A. Alcohol and domestic violence in a sample of incidents reported to the policy in Zurich City. Subst Use Misuse. 2003;38:881–93.
88. El-Bassel N, Gilbert L, Witte S, Wu E, Chang M. Intimate partner violence and HIV among drug-involved women: contexts linking these two epidemics–challenges and implications for prevention and treatment. Subst Use Misuse. 2011;46(2–3):295–306.
89. Girchenko P, King EJ. Correlates of double risk of HIV acquisition and transmission among women who inject drugs in St. Petersburg, Russia. AIDS Behav. 2017;21(4):1054–8.
90. Jewkes RK, Dunkle KL, Nduna M, Shai N. Intimate partner violence, relationship power inequity, and incidence of HIV infection in young women in South Africa: a cohort study. Lancet. 2010;376:41–8.
91. Peasant C, Sullivan TP, Weiss NH, Martinez I, Meyer JP. Beyond the syndemic: condom negotiation and use among women experiencing partner violence. AIDS Care. 2017;29(4):516–23.
92. Montesanti SR. The role of structural and interpersonal violence in the lives of women: a conceptual shift in prevention of gender-based violence. BMC Women's Health. 2015;15:93.
93. Michau L, Horn J, Bank A, Dutt M, Zimmerman C. Prevention of violence against women and girls: lessons from practice. Lancet. 2015;385(9978):1672–84.
94. Heise L. Violence against women: an integrated, ecological framework. Violence Against Women. 1998;4:262–90.
95. Wingood GM, DiClemente RJ. Application of the theory of gender and power to examine HIV-related exposures, risk factors, and effective interventions for women. Health Educ Behav. 2000;27(5):539–65.
96. Connell RW. Gender and power. Stanford: Stanford University Press; 1987.
97. Heise L. What works to prevent partner violence: an evidence overview. London: Strive Research Consortium; 2011.
98. Yuen WW, Tran L, Wong CK, Holroyd E, Tang CS, Wong WC. Psychological health and HIV transmission among female sex workers: a systematic review and meta-analysis. AIDS Care. 2016;28(7):816–24.
99. Sanders T. The risks of street prostitution: punters. Police and protesters. Urban Stud. 2016;41(9):1703–17.
100. Krusi A, Chettiar J, Ridgway A, Abbott J, Strathdee SA, Shannon K. Negotiating safety and sexual risk reduction with clients in unsactioned safer indoor sex work environments: a qualitative study. Am J Public Health. 2012;102(6):1154–9.
101. Mc Grath-Lone L, Marsh K, Hughes G, Ward H. The sexual health of female sex workers compared with other women in England: analysis of cross-sectional data from genitourinary medicine clinics. Sex Transm Infect. 2014;90(4):344–50.
102. Logie CH, James L, Tharao W, Loutfy MR. HIV, gender, race, sexual orientation, and sex work: a qualitative study of intersectional stigma experienced by HIV-positive women in Ontario, Canada. PLoS Med. 2011;8(11):e1001124.
103. Lacombe-Duncan A. An intersectional perspective on access to HIV-related healthcare for transgender women. Transgend Health. 2016;1(1):137–41.
104. Wagner AC, Girard T, McShane KE, Margolese SL, Hart TA. HIV-related stigma and overlapping stigmas towards people living with HIV among health care trainees in Canada. AIDS Educ Prev. 2017;29(4):364–76.
105. King EJ, Maman S, Bowling JM, Moracco KE, Dudina V. The influence of stigma and discrimination on female sex workers' access to HIV services in St. Petersburg, Russia. AIDS Behav. 2013;17(8):2597–603.
106. Weitzer R. Sociology of sex work. Ann Rev Sociol. 2009;35(1):213–34.
107. Scambler G. Sex work stigma: opportunist migrants in London. Sociology. 2016;41(6):1079–96.

108. Decker MR, Crago A-L, Chu SKH, Sherman SG, Seshu MS, Buthelezi K, et al. Human rights violations against sex workers: burden and effect on HIV. Lancet. 2015;385(9963):186–99.
109. Morton A, Tabrizi S, Garland S, Lee P, Reid P, Fairley C. Will the legalisation of street sex work improve health? Sex Transm Infect. 2002;78(4):309.
110. Hubbard P, Matthews R, Scoular J. Regulating sex work in the EU: prostitute women and the new spaces of exclusion. Gend, Place Cult. 2008;15(2):137–52.
111. Baratosy R, Wendt S. "Outdated Laws, Outspoken Whores": exploring sex work in a criminalised setting. Women's Stud Int Forum. 2017;62:34–42.
112. Holtgrave DR, Hall HI, Wehrmeyer L, Maulsby C. Costs, consequences and feasibility of strategies for achieving the goals of the National HIV/AIDS strategy in the United States: a closing window for success? AIDS Behav. 2012;16(6):1365–72.
113. Allen S, Meinzen-Derr J, Kautzman M, Zulu I, Trask S, Fideli U, et al. Sexual behavior of HIV discordant couples after HIV counseling and testing. Aids. 2003;17(5):733–40.
114. Van der Straten A, Gómez CA, Saul J, Quan J, Padian N. Sexual risk behaviors among heterosexual HIV serodiscordant couples in the era of post-exposure prevention and viral suppressive therapy. Aids. 2000;14(4):F47–54.
115. Attia S, Egger M, Müller M, Zwahlen M, Low N. Sexual transmission of HIV according to viral load and antiretroviral therapy: systematic review and meta-analysis. Aids. 2009;23(11):1397–404.
116. Schiltz MAST. HIV-positive people, risk and sexual behavior. Soc Sci Med. 2000;50:1571–88.
117. Kalichman SC. Psychological and social correlates of high-risk sexual behaviour among men and women living with HIV/AIDS. AIDS Care. 1999;11(4):415–28.
118. Kalichman SC, Rompa R, Cage M, Di Fonzo K, Simpson D, Austin J, et al. Effectiveness of an intervention to reduce HIV trasmission risks in HIV-positive people. Am J Prev Med. 2001;21(2):84–92.
119. Adedimeji AA, Hoover DR, Shi Q, Gard T, Mutimura E, Sinayobye J, et al. Sexual behavior and risk practices of hiv positive and HIV negative Rwandan women. AIDS Behav. 2015;19(7):1366–78.
120. Mahajan AP, Sayles JN, Patel VA, Remien RH, Ortiz D, Szekeres G, et al. Stigma in the HIV/AIDS epidemic: a review of the literature and recommendations for the way forward. AIDS (London, England). 2008;22(Suppl 2):S67–79.
121. Stangl AL, Lloyd JK, Brady LM, Holland CE, Baral S. A systematic review of interventions to reduce HIV-related stigma and discrimination from 2002 to 2013: how far have we come? J Int AIDS Soc. 2013;16(3 Suppl 2):18734.
122. Chambers LA, Rueda S, Baker DN, Wilson MG, Deutsch R, Raeifar E, et al. Stigma, HIV and health: a qualitative synthesis. BMC Public Health. 2015;15:848.
123. Hood JE, Friedman AL. Unveiling the hidden epidemic: a review of stigma associated with sexually transmissible infections. Sex Health. 2011;8(2):159–70.
124. Piot P. AIDS: from crisis management to sustained strategic response. Lancet. 2006;368:526–30.
125. Earnshaw VA, Smith LR, Cunningham CO, Copenhaver MM. Intersectionality of internalized HIV stigma and internalized substance use stigma: implications for depressive symptoms. J Health Psychol. 2015;20(8):1083–9.
126. Logie CH, Lacombe-Duncan A, Wang Y, Kaida A, de Pokomandy A, Webster K, et al. Sexual orientation differences in health and wellbeing among women living with HIV in Canada: findings from a National Cohort Study. AIDS Behav. 2017;22(6):1987–2001.
127. Fish J, Bewley S. Using human rights-based approaches to conceptualise lesbian and bisexual women's health inequalities. Health Soc Care Community. 2010;18(4):355–62.
128. King M, Semlyen J, See Tai S, Killaspy H, Osborn D, Popelyuk D, et al. A systematic review of mental disorder, suicide, and deliberate self-harm in lesbian, gay and bisexual people. BMC Psychiatry. 2008;8(1):70.
129. Operario D, Gamarel KE, Grin BM, Lee JH, Kahler CW, Marsall BDL, et al. Sexual minority health disparities in adult men and women in the United States: National Health and Nutrition Examination Survey, 2001-2010. Am J Public Health. 2015;105(10):e27–34.
130. Hughes TL, Johnson TP, Steffen AD, Wilsnack SC, Everett B. Lifetime victimization, hazardous drinking, and depression among heterosexual and sexual minority women. LGBT Health. 2014;1(3):192–203.
131. Button DM, O'Connell DJ, Gealt R. Sexual minority youth victimization and social support: the intersection of sexuality, gender, race and victimization. J Homosex. 2012;59(1):18–43.
132. Pyra M, Weber KM, Wilson TE, Cohen J, Murchison L, Goparaju L, et al. Sexual minority women and depressive symptoms throughout adulthood. Am J Public Health. 2014;104(12):e83–90.
133. Fethers K, Marks C, Mindel A, Estcourt CS. Sexually transmitted infections and risk behaviours in women who have sex with women. Sex Transm Infect. 2000;76(5):345–9.
134. Lyons T, Kerr T, Duff P, Feng C, Shannon K. Youth, violence and non-injecting drug use: nexus of vulnerabilities among lesbian and bisexual sex workers. AIDS Care. 2014;26(9):1090–4.
135. Nehl EJ, Elifson K, DePadilla L, Sterk C. Sex partner type, drug use and condom use self-efficacy among African Americans from disadvantaged neighborhoods: are associations with consistent condom use moderated by gender? J Sex Res. 2016;53(7):805–15.
136. Noar SM, Carlyle K, Cole C. Why communication is crucial: Meta-analysis of the relationship between safer sexual communication and condom use. J Health Commun. 2006;11(4):365–90.
137. Rinehart JK, Yeater EA. The effects of male attractiveness and sexual attitudes on women's risk perception. Violence Against Women. 2012;18(3):249–63.
138. Sterk CE, Klein H, Elifson KW. Perceived condom use self-efficacy among at-risk women. AIDS Behav. 2003;7(2):175–82.
139. Bandura A. Self-efficacy: toward a unifying theory of behavioural change. Psychol Rev. 1977;84:191–215.
140. Campbell AN, Brooks AJ, Pavlicova M, Hu M-C, Hatch-Maillette MA, Calsyn DA, et al. Barriers to condom use: results for men and women enrolled in HIV risk reduction trials in outpatient drug treatment. J HIV/AIDS Soc Serv. 2016;15(2):130–46.
141. Kapadia F, Latka MH, Wu Y, Strathdee SA, Mackesy-Amiti ME, Hudson SM, et al. Longitudinal determinants of consistent condom use by partner type among young injection drug users: the role of personal and partner characteristics. AIDS Behav. 2011;15(7):1309–18.
142. Sarkar NN. Barriers to condom use. EUR J Contracept Reprod Health Care. 2008;13(2):114–22.
143. Sheeran P, Abraham C, Orbell S. Psychosocial correlates of heterosexual condom use: a meta-analysis. Psychol Bull. 1999;125(1):90–132.
144. Asad AL, Kay T. Toward a multidimensional understanding of culture for health interventions. Soc Sci Med. 2015;144:79–87.
145. Singer MK. Applying the concept of culture to reduce health disparities through health behaviour research. Prev Med. 2012;55:356–61.

146. Singer MK, Dressler W, George S, The NIH. Expert panel. Culture: the missing link in health research. Soc Sci Med. 2016;170:237–46.
147. Napier AD, Ancarno C, Butler B, Calabrese J, Chater A, Chatterjee H, et al. Culture and health. Lancet. 2014;384:1607–39.
148. Kocken P, van Dorst A, Schaalma H. The relevance of cultural factors in predicting condom-use intentions among immigrants from the Netherlands Antilles. Health Educ Res. 2006;21(2):230–8.
149. Gómez CA, Marín BV. Gender, culture and power: barriers to HIV-prevention strategies for women. J Sex Res. 1996;33(4):355–62.
150. Hoffman S, Mantell J, Exner T, Stein Z. The future of the female condom. Perspect Sex Reprod Health. 2004;36(3):120–6.
151. Stockman JK, Morris MD, Martinez G, Lozada R, Patterson TL, Ulibarri MD, et al. Prevalence and correlates of female condom use and interest among injection drug-using female sex workers in two Mexico-US border cities. AIDS Behav. 2012;16(7):1877–86.
152. Gollub EL. The female condom: tool for women's empowerment. Am J Public Health. 2000;90(9):1377–81.
153. Strathdee SA, Lozada R, Martinez G, Vera A, Rusch ML, et al. Social and structural factors associates with HIV infection among female sex workers who inject drugs in Mexico-US border region. PLoS ONE. 2011;6:e19048.
154. De Graff R, Vanwesenbeeck I, van Zessen G, Straver CJ, Visser JH. Alcohol and drug use in heterosexual and homosexual prostitution, and its relation to protection behaviour. AIDS Care. 1995;7(7):35–47.
155. Strathdee SA, Abramovitz D, Lozada R, Martinez G, Gudelia Rangel M, Vera A, et al. Reductions in HIV/STI incidence and sharing of injection equipment among female sex workers who inject drugs: results from randomized controlled trial. PLoS ONE. 2013;8(6):e65812.
156. Strathdee SA, Philbin MM, Semple SJ, Pu M, Orozovich P, et al. Correlates of injection drug use among female sex workers in two Mexico-US border cities. Drug Alcohol Depend. 2008;92(9):132–40.
157. Wechsberg WM, Krupitsky E, Romanova T, Zvartau E, Kline TL, et al. Double jeopardy-drug and sex risks among Russian women who inject drugs: initial feasibility and efficacy results of a small randomized controlled trial. Subst Abuse Treat Prev Policy. 2012;7(1):1.
158. Stoebenau K, Hindin MJ, Nathanson CA, Rakotoarison PG, Razafintsalama V. "… But then he became my sipa": the implications of relationship fluidity for condom use among women sex workers in Antananarivo, Madagascar. Am J Public Health. 2009;99(5):811–9.
159. Amaro H. Love, sex, and power: considering women's realities in HIV prevention. Am Psychol. 1995;50(6):437–47.
160. Lazar C, SanClemente C, Ferrer L, Folch C, Casabona J. Condom use among female sex workers in Catalonia: why do they use a condom, why don't they use it? AIDS Educ Prev. 2015;27(2):180–93.
161. Robertson AM, Syvertsen JL, Amaro H, et al. Can't buy my love: a typology of female sex workers' commercial relationships in the Mexico-US border region. J Sex Res. 2014;51(6):711–20.
162. Sherman SG, Latkin CA. Intimate relationship characteristics associated with condom use among drug users and their sex partners: a multilevel analysis. Drug Alcohol Depend. 2001;64(1):97–104.
163. Damasio AR. Descartes' error: emotion, reason, and the human brain. New York: Grosset/Putnam; 1994.
164. Cabral RJ, Calavotti C, Armstrong K, Morrow BMS, Fogarty L. Reproductive and contraceptive attitudes as predictors of condom use among women in a HIV prevention intervention. Women Health. 2008;33(3–4):131–47.
165. Pruitt SL, von Sternberg K, Velasquez MM, Dolan Mullen P. Condom use among sterilized and nonsterilized women in county jail and residential treatment centers. Women Health Issues. 2010;20(6):386–93.
166. Sangi-Haghpeykar H, Horth F, Poindexter AN. Condom use among sterilized and nonsterilized Hispanic women. Sex Transm Dis. 2001;28(9):546–51.
167. Semaan S, Lauby J, Walls C. Condom use with main partners by sterilized and non-sterilized women. Women Health. 1997;25(2):65–85.
168. Gallo MF, Behets FM, Steiner MJ, et al. Validity of self-reported 'safe sex' among female sex workers in Mombasa, Kenya. PSA Analysis. Int J STD AIDS. 2007;18(1):33–8.
169. Schroder KEE, Carey MP, Vanable PA. Methodological challenges in research on sexual risk behaviour: II, Accuracy of self-reports. Ann Behav Med. 2003;26(2):104–23.
170. Leek JT, Peng RD. Statistics: p values are just the tip of the iceberg. Nature. 2015;520:612.
171. Trafimow D, Marks M. Editorial: basic and applied science. Appl Soc Psychol. 2015;37:1–2.
172. Abraham C. Using theory in research. In: Michie S, Abraham C, editors. Health psychology in practice. Oxford: BPS Blackwells; 2004.
173. Marks DF. The quest for meaningful theory in health psychology. J Health Psychol. 2008;13(8):977–81.
174. Weiss ML, Chitwood DD, Sanchez J. Religiosity, drug use, and HIV-related risk behaviors among heroin injectors. J Drug Issues. 2008;38(3):883–909.
175. Billioux VG, Sherman SG, Latkin CA. Religiosity and HIV-related drug risk behaviour: a multidimensional assessment of individuals from communities with high rates of drug use. J Relig Health. 2014;53(1):34–45.
176. Shaw SA, El-Bassel N. The influence of religion on sexual HIV risk. AIDS Behav. 2014;18(8):1569–94.
177. Kalichman SC. Pence, Putin, Mbeki and their HIV/AIDS-related crimes against humanity: call for social justice and behavioural science advocacy. AIDS Behav. 2017;21(4):963–7.
178. Sumartojo E. Structural factors in HIV prevention: concepts, examples, and implications for research. Aids. 2000;14(1):S3–10.
179. Maksut JL, Eaton LA. Female condoms = missed opportunities: lessons learned from promotion-centered interventions. Women's Health Issues. 2015;25(4):366–76.
180. Marfatia YS, Pendya I, Mehta K. Condoms: past, present and future. Indian J Sex Transm Dis. 2015;36(2):133–9.
181. Ritchers J, Clayton S. The practical and symbolic purpose of dental dams in lesbian safer sex promotion. Sex Health. 2010;7:103–6.
182. Sakondhavat C. Challenges to female condom integration into condom programming. Int J STD AIDS. 2002;13:444–8.
183. Vijayakumar G, Mabude Z, Smit J, Beksinska M, Lurie M. A review of female-condom effectiveness: patterns of use and impact on protected sex acts and STI incidence. Int J STD AIDS. 2006;17(10):652–9.
184. Baeten JM, Donnell D, Ndase P, Mugo NR, Campbell JD, Wangisi J, et al. Antiretroviral prophylaxis for HIV prevention in heterosexual men and women. N Engl J Med. 2012;367(5):399–410.
185. Choopanya K, Martin M, Suntharasamai P, Sangkum U, Mock PA, Leethochawalit M, et al. Antiretroviral prophylaxis for HIV infection in injecting drug users in Bangkok, Thailand (the Bangkok Tenofovir Study): a randomised, double-blind, placebo-controlled phase 3 trial. Lancet. 2013;381(9883):2083–90.
186. McCormack S, Dunn DT, Desai M, Dolling DI, Gafos M, Gilson R, et al. Pre-exposure prophylaxis to prevent the acquisition of HIV-1 infection (PROUD): effectiveness results from the pilot phase of a pragmatic open-label randomised trial. Lancet. 2016;387(10013):53–60.

3.3. Commentary

This systematic literature review highlighted the complex interrelations of factors associated with STI and BBV risk among WHOD. This systematic literature review provided a wider picture of the factors associated with STI/BBV sexual transmission among WHOD: 1) socio-demographics; 2) gender roles and violence against women; 3) substance use; 4) transactional sex; 5) partners' characteristics, partners' drug use, and context of sex; 6) preferences, negotiation and availability of condoms; 7) HIV status and STIs; 8) number of sexual partners; 9) love and trust; 10) reproductive health and motherhood; and 11) risk awareness and perception of control. Undertaking this systematic literature review also revealed the methodological and theoretical limitations of previous research, as well as the research agenda over the last two decades. As the paper highlights, the focus of previous research has been on individual-level factors, whilst other important socio-structural determinants of health have been neglected. These are the prevalence of social and health inequities, GBV, stigma and discrimination, social neglect and structural violence. Also, the role of culture and the human need for intimacy and love. Human and health rights need to be at the core of any research in social sciences, especially when working with vulnerable populations that have been long neglected. Health promotion strategies seemed to have followed the same pattern and have taken an individual-level perspective to public health. This study, and the rest of this thesis, provides evidence on the importance of incorporating social-ecological frameworks in health promotion and public health. This would provide a broader understanding of the determinants of health and could address the social and health inequities that maintain poor health outcomes among those groups and individuals with less social power. These arguments are further developed in Chapter 9.

This study was part of a needs assessment to provide explanations for the heightened risk of STIs and BBVs among WOST. The findings from the systematic literature review contributed to the development of the Logic Model of the Problem (see Figure 9, page 151).

3.4. Statement of Authorship

The planning, searches and screening for the systematic literature review were led by the author of this thesis (LMP). Dr Hannah Family and Dr Charlotte Dack supervised and contributed to planning the study and screened ten percent of the publications for each screening stage (see page 19). This publication was written by LMP. The PhD supervisors and co-authors, Dr Hannah Family, Dr Jenny Scott, Dr Sarah Chapman and Dr Charlotte Dack read, gave feedback and contributed to all drafts. Prof Julie Barnett contributed to the development of this paper although could not provide feedback for each draft and therefore did not take an authorship role.

3.5. Permissions

Permissions to include the publication in this PhD thesis were obtained from Springer Nature (see Appendix 27) on 31st of July 2018.

3.6. Data Access Statement

Data supporting this publication are available upon request to the main author of the paper and this PhD thesis. This publication includes electronic supplementary material that can be accessed at https://doi.org/10.1007/s10461-018-2238-7.

CHAPTER 4. The Views of Women on Opioid Substitution Treatment

The findings from the semi-structured interviews and focus groups with WOST are presented in this chapter. These findings relate to the study aims and objectives of this PhD research (see page 10).

4.1. Participant Characteristics

4.1.1 Semi-structured interviews

Table 5 reports sociodemographic characteristics of interview participants. WOST were between 27 and 56 years old (*M*=39.5; *SD*=9.65). They were mostly British (n=18, 90%), and all spoke English as their first language. Most participants had either no academic qualifications (n=8, 40%), or had completed secondary education (n=7, 35%). Three women had been homeless in their past (15%) and another three women were homeless at the time of the research (15%). Most women were unemployed when they were interviewed (n=16, 80%), and 16 lived off an annual income below £10,000 (80%). All participants smoked tobacco (n=20). Most were using other substances, including heroin (n=18, 90%). All WOST were on OST, of which 70% were prescribed methadone (n=14). Most had had sex with men only (n=14, 70%) and almost half had engaged in transactional sex (n=8, 40%). Seventeen women reported having experienced sexual abuse in their lifetime (89.5%); one participant abstained from answering this question. It is important to note that over half of WOST were not having sex at the time of the research (n=11, 55%). There were different explanations for this that are outlined in this chapter. Only four reported using condoms at the time of the interview (20%). A large percentage of participants had been screened for BBVs and/or STIs at some point (n=17, 94.4%) and some had been diagnosed with an STI or a BBV (see Table 5).

Table 5

Demographics, drug use, opioid substitution treatment and sexual health-related data.

Participant characteristics (N=20)	**n (%)**
Age	*M*=39.50 (*SD*=9.65)
Ethnicity	
English/Welsh/Scottish/Northern Irish/British	18 (90)
White European	1 (5)
Black African	1 (5)
Primary language	
English	20 (100)

Education	
No academic qualifications	8 (40)
0 Level/Scottish Higher or equivalent (NVQ/SVQ Level 2)	7 (35)
A Level/Scottish Higher or equivalent (NVQ/SVQ Level 3)	3 (15)
First degree	2 (10)
Homelessness	
Current	3 (15)
Lifetime	3 (15)
Employment status	
Unemployed	16 (80)
Working 16 hours or more a week	4 (20)
Annual income (N=19)*	
£ 0-4,999	9 (45)
£ 5,000-9,999	7 (35)
£ 10,000-14,999	3 (15)
Current drug use	
Tobacco	20 (100)
Heroin	18 (90)
Alcohol	17 (85)
Methadone (prescribed and non-prescribed)	17 (85)
Crack cocaine	15 (75)
Cannabis	15 (75)
Benzodiazepines	15 (75)
Codeine	13 (65)
Opioid substitution treatment**	
Methadone	14 (70)
Buprenorphine	5 (25)
Suboxone	1 (5)
Sexual partners	
Men only	14 (70)
Women and men	5 (25)
Women only	1 (5)
Transactional sex (lifetime)	8 (40)
Sexual abuse (N=19)*	17 (89.5)
Sexual health	
STI/BBV preventive methods	

No sex	11 (55)
None	5 (25)
Male condom use	4 (20)
STI/BBV screening (at least once) (N=18)	17 (94.4)
STI/BBV diagnoses	
Hepatitis C	7 (35)
Chlamydia	4 (20)
Genital warts	2 (10)
Pubic lice	2 (10)
Scabies	2 (10)
Gonorrhoea	1 (5)
Human Papillomavirus	1 (5)

* = data missing from one participant; ** = OST dosage was not requested.

4.1.2. Focus groups

There were two focus group sessions conducted. Only one WOST attended the first session. Three WOST attended the second session. Data from both focus groups were merged and analysed together as for one focus group session only one participant attended. The age of WOST taking part in the focus groups was between 35 and 48 years (*M*=40.25, *SD*=5.74). All women spoke English as their first language. Most were British (n=3, 75%) and one was Caribbean (n=1, 25%). Three WOST (75%) had no academic qualifications and two (50%) were unemployed. The annual income of all WOST taking part in focus groups was of a maximum of £9,999. There was no data on homelessness for this group of participants. All women were using other substances apart from the opioid substitution treatment. Two women gave details on the STI/BBV preventive methods that they used. One participant used male and female condoms. Another participant did not use any barrier methods (i.e., male and female condom, and dental dam). WOST taking part in the focus groups reported diagnoses of chlamydia, scabies, gonorrhoea and another non-specified STI. All had had a sexual health screen at least once in their lifetime. Two women reported having experienced sexual violence (66.7%) and half had engaged in transactional sex. See Table 6 for further details.

Table 6

Demographics, drug use, opioid substitution treatment and sexual health-related data of women on opioid substitution treatment taking part in the focus groups.

Participant characteristics (N=4)	n (%)
Age	*M*=40.25 (*SD*=5.74)
Ethnicity	
English/Welsh/Scottish/Northern Irish/British	3 (75)
Caribbean	1 (25)
Primary language	
English	4 (100)
Education	
No academic qualifications	3 (75)
0 Level/Scottish Higher or equivalent (NVQ/SVQ Level 2)	1 (25)
Employment status	
Unemployed	2 (50)
Working 16 hours or more a week	1 (25)
In part-time education	1 (25)
Annual income (N=3)	
£ 0-4,999	1 (33.3)
£ 5,000-9,999	2 (66.7)
Current drug use (N=3)	
Tobacco	3 (100)
Benzodiazepines	3 (100)
Alcohol	2 (66.7)
Methadone (prescribed and non-prescribed)	1 (33.3)
Crack cocaine	1 (33.3)
Cocaine	1 (33.3)
Cannabis	1 (33.3)
Other	1 (33.3)
Opioid substitution treatment	
Methadone	1 (25)
Buprenorphine	1 (25)
Other (non-specified)	2 (50)
Sexual partners	
Men only	2 (50)
Women and men	2 (50)

Transactional sex (lifetime)	2 (50)
Sexual abuse (N=3)*	2 (66.6)
Sexual health	
STI/BBV preventive methods (N=2)	
Male condom use	1 (33.3)
Female condom use	1 (33.3)
None	1 (33.3)
STI/BBV screening (at least once)	4 (100)
STI/BBV diagnoses	
Chlamydia	1 (25)
Scabies	1 (25)
Gonorrhoea	1 (25)
Other	1 (25)

* = data missing from one participant.

4.2. Main Findings

Interviews with WOST aimed at exploring 1) the factors that may be associated with WOST's risk for the sexual transmission of STIs and BBVs, 2) WOST's sexual health needs, 3) WOST's perceptions on the role that CPs promoting sexual health, and 4) WOST's views on a pharmacy-based sexual health service. Data were analysed using FA (semi-structured interviews) and QCA (focus groups) (see page 28). Seven themes and associated subthemes were identified, based on the data from the semi-structured interviews and the focus groups (see Table 7).

Table 7

Analytic framework: women on opioid substitution treatment.

	Themes	Subthemes
1	Beliefs, knowledge and education	Definitions of "safe sex"
		Beliefs about condoms
		STI and BBV knowledge
		Sex and sexual health education
2	Lifestyle and risk	Prioritising drug use
		Risk awareness and health

3	Power and emotion	Disempowerment and helplessness
		Love, trust and self-worth
4	Intersectional stigma (*publication*)	Gender-related stigma
		Drug-use related stigma
		Transactional sex-related stigma
		Homelessness-related stigma
		STI/BBV status-related stigma
5	Gender-based violence	The context and nature of GBV
		The impact of GBV
		Social and professional support for GBV
6	Views and experiences with the health system and community pharmacy	(Sexual) health services and the health system
		Services in community pharmacy
		Interactions in community pharmacy
7	A sexual health service in community pharmacy	Acceptability and positive aspects
		Perceived barriers
		Ideas for the service

4.2.1. Beliefs, knowledge and education

One of the themes identified was around WOST's beliefs, knowledge and education on sex and sexual health. The subthemes were 1) definitions of "safe sex", 2) beliefs about condoms, 3) STI and BBV knowledge, and 4) sex and sexual health education.

4.2.1.1. Definitions of "safe sex"

WOST were asked what "being safe" in sex meant for them. *Safe sex* was defined as using condoms[7] by most women. A few others thought of *safe sex* as using condoms and contraceptives, to prevent both STI/BBV transmission and pregnancy. This could be related to the fact that WOST's concerns were more focused on pregnancy prevention than STI/BBV sexual transmission. Having

[7] The term "condoms" is used to refer to "male condoms", unless specified differently. This is because participants used the term "condom(s)" to refer to "male condom(s)" unless explicitly referring to "female condoms".

multiple and casual sexual partners, and having high sexual activity were seen as *not safe*. Having long-term stable sexual partners was generally perceived as *safe* and women were not likely to use condoms with these partners. This was associated with feelings of trust and love (see page 93).

"So they [men] *would say "Go on the pill!" or, you know what I mean, thinking that it's safe sex when it isn't. It isn't safe, you know what I mean, it's not going to stop the transmitted disease and things like that" (Teresa, 34 years old; interview).*

Abstinence was mentioned by one participant as a way to *be safe* (Emmeline, 35 years old). Another WOST thought that rather than speaking about *safe* sex it should be called *safer* sex (Amelia, 52 years old). Regarding reproductive health, all participants had been pregnant at some point in their lives. Most pregnancies seemed to be unplanned as women reported not using contraceptives or condoms consistently. Participants generally thought that long-lasting methods (e.g., coil) were the best option for them but they normally did not access these services. This seemed to be due to different factors that are discussed throughout this chapter and PhD thesis. Also, when using drugs, it was difficult for WOST to think of adhering to other types of contraceptives that needed to be taken regularly (e.g., contraceptive pill).

"I think long-term approaches are useful like contraceptive injections, make sure if they [WOST] *have a coil, because it's a back-up for, that is the way that I look at it" (Rosa, 40 years old; interview).*

4.2.1.1. Beliefs about condoms

Participants' narratives were mostly around the use of male condoms. Several WOST mentioned female condoms, although these were rarely used. There were however barriers to using female condoms. These were perceived as embarrassing to carry as they are big and then "too visible". Women were also uncertain about their effectiveness, as they could not be certain about whether they were well-placed or not, especially compared with male condoms. Participants also mentioned men's generally negative views about female condoms.

"Women don't carry things like that [male condoms] *do they? There should be something for women… I know you've got Femidom* [female condom]*, women ain't gonna go and carry that* [female condom] *out, ain't they? (…) I think it's more of a… embarrassment for a woman, like they go out and they've got a Femidom in their purse… you know? For a woman it's a little bit different I feel…" (Eleanor, 38 years old; interview).*

There were also barriers to using male condoms. These were not always perceived as reliable (e.g., they could break), they made sex less intimate and unnatural and limited the pleasure for some women and their partners. Women also mentioned the financial constraints to obtain condoms. Some

women were also embarrassed about getting, carrying and negotiating condom use which hindered their use.

"I mean I have used condoms in the past, you know, and it does feel weird and it doesn't feel right you know… it doesn't feel natural if you know what I mean. So you want it to feel natural, you know what I mean. If you want to have sex you wanna it to feel natural, skin to skin basically you know what I mean… but having something rubber it's not very nice" (Teresa, 34 years old; interview).

The belief of condoms being "the man's responsibility" and women's disempowerment in negotiating condom use were other barriers mentioned. Men's general reluctance to use condoms was a barrier for using both female and male condoms. Believing that carrying and negotiating condom use was "a man's job" seemed to enhance women's feelings of disempowerment and lack of control over their sexual health.

"It's all quite tough on us women, you know, so it's you know, when it comes to condoms women go get the pill, or get the bar [contraceptive implant] *or get the injection so when it gets to the condoms they are not so, you know, they think they've done the rest of the things although they would do the rest of the things then the condoms is kind of down to the man (Lily, 36 years old; interview).*

4.2.1.2. STI and BBV knowledge

The levels and nature of knowledge on sexual health varied from each participant. Most participants acknowledged they did not have enough information about STIs and BBVs, although some WOST appeared to have sufficient STI/BBV knowledge. Overall, women seemed to have a limited understanding about routes of transmission and symptomatology of STIs and BBVs, preventive methods and STI/BBV treatment. For instance, most women did not consider oral transmission of STIs or BBVs and were not aware of asymptomatic STIs. They also expressed not having heard about many STIs. Only two women had heard of HPV. Viral hepatitis, HIV, chlamydia, gonorrhoea and genital herpes were the main STIs and BBVs that women discussed. WOST generally knew more about BBVs than STIs. Despite all women being familiar with HIV, a few WOST held important misconceptions about HIV transmission (e.g., HIV can be acquired through saliva). These were related to the stigma and discrimination attached to HIV (see page 97).

"Cause, as I said, it worries me if you use the toilet or… For instance I know this bloke, but we had a friend that had HIV and he came around to the house and he used one of my glasses to have a drink and that… I know it sounds cruel but when he left I threw the glass away, because I thought, I didn't know if you could catch it through… even if I washed the glass I didn't know if… I guess it is in my mind cause otherwise I wouldn't have thought of chucking it like that, you know, just washed and that" (Florence, 37 years old; interview).

On the other hand, participants often did not know about sexual health services in the area, even despite there being a sexual health clinic located in the same building as where most of the interviews were conducted. The screening sites that the WOST in this study visited were mostly drug services. Most health services that women knew about had been offered when accessing drug services. These were mainly screening and vaccinations for hepatitis A and B in drug services. Some WOST mentioned that free condoms could be obtained through NEP packs, drug services, and services for sex workers.

"Yeah, I mean when I first signed up to [drug service] *one of the first things that I was offered was a… a test for Hep C cause, you know, in the past I had used needles so I think when you're getting new clients signing up for treatment I think that's the perfect opportunity to introduce the whole subject, because I didn't know that they offered all these extra things and, as soon as I did know yeah I took them up on it" (Rosa, 40 years old; interview).*

Sources of information, from most to least used, were: the internet, television, magazines, life experiences, peers, school, visual ads of sexual health services, health assessments in drug services, books, health professionals, and newspapers (e.g., to know about a HIV/AIDS outbreak). When WOST were young, getting information from parents was uncommon. This appeared to be associated with sex and sexual health being taboo and stigmatised topics. In some cases, women also explained that their parents had disregarded their sexual and reproductive health needs when they were younger. This had had a negative impact on their health and wellbeing, and in their relationship with their parents.

"Back when, back when I asked my mum if I could go to the doctors and get the pill she said "No, you have to leave the home if you do that. You are a little whore if you do that". And I had been with my boyfriend for over a year and I was quite young, sixteen and that, and I had been with him for over a year and she wouldn't let me go to the doctors and that and I ended up pregnant" (Sarah, 53 years old; interview).

Being focused on drug using had prevented a few women from seeking information on potential health concerns, including sexual health-related issues. Drug use was also a barrier for accessing (sexual) health services (see page 88). On the other hand, participants felt that the knowledge of health professionals and people who do not use drugs around drug use and WOST's realities was very restricted and superficial.

4.2.1.3. Sex and sexual health education

Several women talked about sex and sexual health education. Overall, participants said they had not had enough sex and sexual health education. Some of them remembered having some at school but they thought it was not enough. They described how teachers were embarrassed speaking

about sex and sexual health themselves, which reinforced the taboo and stigma of sex. Some participants mentioned how they wanted a better sex and sexual health education for their children and grandchildren. Several women provided condoms and contraceptives to their children, and a few had had conversations around sex and sexual health with them. It was still challenging for WOST to approach the topic, as it was an uncomfortable conversation because of the taboo attached to it. Communicating about sex and sexual health was however key to prevention, as a few participants discussed.

"In England we have this really big problem of stiff upper lip and things are taboo. We need to get over that. The reason it's a taboo it's cause nobody would talk about it. It needs to be discussed to prevent it happening… (…) British are so up themselves, they don't talk about things that need to be discussed. And swipe it under the carpet and forget it, it doesn't exist. And it's the wrong attitude to have" (Joan, 27 years old; interview).

Most women claimed that sex and sexual health education should be more accessible. Participants thought that schools should educate more on sexual health (and also other issues such as drug use and homelessness). They thought that the UK government should be involved in improving the educational system. A few women acknowledged that it was a controversial topic though, due to the taboo and stigma attached to sex. Some participants expressed being eager to learn more around sex and sexual health, and engage in communicating knowledge to others.

"Yeah, a lot of people want to have their children learning sex education in school and they learn from four and it's not that they go into details but they say about animals and plants from a very young age. And a lot of parents wouldn't let their children learn… But if they don't learn they are going to learn it from somewhere else" (Emmeline, 35 years old; interview).

A few participants suggested that there should be more information available in public spaces, and taboo and stigma towards sex and sexual health should be challenged to allow this. One WOST also pointed out that there was a misrepresentation of the uses of condoms in the media, as condoms are almost exclusively advertised for vaginal intercourse. According to her, that needed to change in order to provide a more comprehensive understanding of the reasons and ways of using condoms (Rosa, 40 years old; interview). Some participants were teenagers and young adults during the HIV outbreak in the 80s and 90s. They explained how the media had a powerful role in disseminating fear and stigma. Participants thought that misconceptions about HIV and HIV-related stigma had decreased, but they were still prevalent. Pornography was also discussed to have a negative impact on people's expectations of sex and sexual health.

I remember growing up, I am 41, so that was about the time I was a teenager, I think it was quite terrifying the way it was broadcast, and now, literally it's basically HIV is not the same death sentence as it once was before, with drugs and treatment, people can live relatively a normal life

really. I have a few friends with HIV, and I have one friend, a close friend, that doesn't want anyone to know really, because people are still close minded, and another service we use, once we found a few girls were aware, they wouldn't use the same cup as her, they refused to use the same toilet, I mean in 2016-17 its almost embarrassing the way she was treated. I have another friend that has HIV, she's a street sex worker, she's very open about her status and I really respect her, but she gets such yeah, you know, yeah they just freak out about it. Yeah but I really respect that the fact that she's quite open it" (Virginia, 41 years old; focus group).

4.2.2. Lifestyle and risk

Women discussed their lifestyle and how that was related to engaging in health risks, including sexual health risks. This theme is divided into two subthemes: 1) prioritising drug use, and 2) risk awareness and sexual health.

4.2.2.1. Prioritising drug use

Drug-seeking and drug-using behaviours were generally prioritised over any other behaviour or concern when women were heavily using drugs. As participants explained, taking health and personal risks was part of this lifestyle, as they were constantly exposed to high risks (e.g., death from overdose). Even if WOST expressed being aware of these risks and frightened of even losing their lives, using drugs outweighed their need to protect themselves. Also, compared with the risk of death, getting an STI or a BBV was perceived by most participants as barely harmful. WOST would sometimes engage in risk behaviours if these would allow them to use drugs (e.g., sharing needles or having condomless sex in exchange for drugs). One participant stated that, even if PWUD have a lifestyle that entails taking many risks, all human beings make risky choices at times. She also called for personal freedom to make ones' own choices, even if these included taking risks (e.g., sexual health risks), and relating this to the negative views that people hold of PWUD (Joan, 27 years old; interview).

"Cause that's always what you are told about, injecting. And if you share with someone else it's never safe. But you don't really care about that. If you don't have clean works and it's the middle of the night or first thing in the morning, you can't get any and you need it. You just grab on anything then (…) When you're using, if you're using an illicit drug you don't care. It doesn't really matter at that point, nothing really matters…" (Emmeline, 35 years old; interview).

"Don't think about none of that, don't think about getting pregnant, it's just part of your lifestyle, so not even hepatitis or HIV comes into the situation, don't care" (Ingrid, 48 years old; focus group).

4.2.2.2. Risk awareness and sexual health

Most women appeared to be aware of some sexual health risks and the potential repercussions on their health. Most also thought that increasing people's awareness was important to prevent STIs and BBVs. According to a few participants, risk awareness increased with age, life experience and if diagnosed with an STI or a BBV. All participants were aware of the need to use condoms in order to prevent STI/BBV sexual transmission. As some participants stated, WOST needed to consider the risks of STI/BBV transmission as much as pregnancy. Some participants thought that most people were not aware of the health consequences of having an STI/BBV and did not perceive themselves at risk. Most participants expressed being aware of the severity of contracting HIV or viral hepatitis, but this was lower for STIs. A few women mentioned infertility as a concern when having an untreated STI, and health consequences on a foetus if getting an STI while pregnant. Some participants were not aware of the risks of oral transmission, nor transmission through anal sex. However, it did not seem that women's awareness of risk translated into engaging in protective behaviours (e.g., using condoms correctly in all sexual encounters). A few participants talked about this openly.

"Like if you're having sex you know you're going to have a chance of getting pregnant you're going to get a chance of maybe getting any other sexual health diseases or HIV that was always in my head that I could get HIV, but you still do it, and I still done it. I had 10 pregnancies altogether 6 of those were live births that was the first one all the way through addiction and I still fucking got pregnant over and over again because I didn't use condoms because there was never no condoms there and I weren't going to go to the shop and buy 'em because I need my money for drugs" (Ingrid, 48 years old; focus group).

Overall, women seemed to know the risks of engaging in condomless sex. Some advocated for the use of condoms and empowerment of women in using them. However, risk awareness was generally low with steady partners[8]. This was attributed to trust and love between women and their partners (see page 93). A few WOST however highlighted that partners could be unfaithful or be unaware of their own sexual health status. Women were not always aware of the heightened risks in these cases with steady partners. Woman-woman sex was also perceived as low risk for all participants, even though they recognised that there was still risk. A few participants mentioned men's good hygiene, youth and physical attractiveness as factors that decreased their perception of STI/BBV risk. Having a low sexual desire or having few sexual encounters seemed to lower women's perception of risk. However, sex was often unplanned and occurred when women were under the influence of drugs and/or alcohol. As participants explained, using substances decreased women's risk awareness and ability to think rationally. Thus, in their words, even having no desire or few sexual encounters could not be translated into "being safe".

[8] Sexual and/or romantic relationships that are maintained over time.

"I went through a stage while being really dependent on alcohol and drinking four bottles of wine a day and I would wake up with people and know that I had sex with them but not remembered. Not wanting to. And that was just a pattern, I just let it happen. And you need help with that and I wasn't on contraception because I didn't have a partner and I didn't want to have sex with anybody but you get so drunk that you find yourself in that situation" (Emma, 27 years old; interview).

The risk of STIs and BBVs was perceived to be higher in casual sexual encounters and when having multiple sexual partners, especially if these were strangers. Risk was perceived to be higher when having sex with PWUD (and particularly with PWID), PLHIV, partners that had multiple sexual partners, and homeless people.

"But when you're having a one night stands, you know, it's best to use them [condoms] *(…) cause you're sleeping with different people and all that (…) If you are in a committed relationship then it's okay, you don't have to use condoms" (Margaret, 45 years old; interview).*

Transactional sex workers were perceived to be at higher risk, compared with women that did not sell sex. This was considered by both women who had engaged in transactional sex and those who had not. This was not just in relation to their sexual health, but also because workers were more exposed to experiencing violence (see page 106). At the same time, women engaging in transactional sex seemed to be more aware of the risks of engaging in condomless sex. Workers seemed to practice condomless sex with clients consistently in most encounters, unless they were in immediate need for money or drugs and clients offered more money to have sex without using condoms. This often happened when WOST were experiencing withdrawal symptoms, and also when women were feeling most worthless (see page 93).

"Not like you ain't got to be a prostitute to, but it's about all of us we all put ourselves at risk, don't we" (Elizabeth, 37 years old; focus group).

"I would never put myself through that [transactional sex] *again… never put myself through that again, it was horrible… but at the time you don't care, you just… all that's on your mind is the drugs, and the money and that's what your life is about, when… it's not life living… When I was using it was wake up, go to* [street name]*, get the money, go score, go back out, it's horrendous… and it's so hard to just… let go of it because it's always there" (Marie, 29 years old; interview).*

Some women thought that most people were unaware of their own sexual health status. Despite most participants having undergone STI/BBV screening in the past, they were often unaware of which STIs and BBVs they had been screened for. A few participants got concerned about not knowing their own sexual health status and stated they planned to be screened for STIs and BBVs

after taking part in the study[9]. WOST mentioned that most of the times that they had been screened was because they were experiencing symptoms. Participants thought that low risk awareness and not having (or not noticing) signs and symptoms of infection were barriers to sexual health screening.

"But when I found I had it [Hepatitis C] *I obviously had had it for years and didn't know I had it, you know what I mean? So yeah… you know, you think that you keep everything clean and I haven't shared a needle in my life and still managed to catch it somehow. So…" (Sojourner, 27 years old; interview).*

4.2.3. Power and emotion

Women's narratives were full of emotion. Power was also an important element in WOST' stories and discussions. Emotions and women's lack of control over their own lives seemed to be important factors associated with WOST' sexual health. The subthemes identified were: 1) disempowerment and helplessness, and 2) love, trust and self-worth.

4.2.3.1. Disempowerment and helplessness

Overall, women expressed feeling powerless and helpless. They felt a lack of control of themselves and their lives, as they felt unable to make and follow through informed and conscious decisions. This seemed to be related to their lifestyle. WOST dealt with uncertainty and risk on a daily basis, some not even knowing whether they would still be alive on the same day. Women were in a situation in which they felt powerless over their own health, life decisions, finances, housing, and social relationships. Besides, living in situations of poverty and homelessness was common. In most cases WOST were responsible for supporting their partners and children financially. In this context, it was difficult for them to sustain their drug-using habits. This appeared to be the main reason why women initiated transactional sex or engaged in other criminalised activities (e.g., shoplifting). Reasons for not getting into transactional sex were mostly situational, such as having a steady partner or not being in withdrawal when offered to sell sex. It then seemed that not engaging in transactional sex was a matter of "luck" and not something that WOST had much control over. It was a vicious cycle in which women felt powerless. They also felt socially isolated and marginalised, and helpless even when accessing social care services.

"I suppose a lot of us would do [engage in transactional sex] *because we find ourselves in a crappy situation* (pause). *But from everything that's going on* [unintelligible] *and probably there's no one else like to help. That's why like I would say I find it like I haven't, but that could be me in that situation but I've been lucky. I'm having a script that doesn't make me have to be like that" (Sylvia, 27 years old; interview).*

[9] All participants were given information and contact details of local sexual health services.

As explained by participants, having sex was not usually in their minds. Women thought that their sexual drive was low due to the use of opioids, and women "just did not need it". Participants thought that sex was not for them, but was a way to please men. Sex often happened in the context of sexual abuse or assault, transactional sex or intoxication with drugs and/or alcohol.

"My bloke used to say when I used to wake up in the morning and I wanted a pipe it used to be unless I have sex he wouldn't let me have the pipe unless you keep me happy I'm not letting you" (Emilie, 36 years old; focus group).

Some women, and especially transactional sex workers, explained how they needed to use drugs or alcohol in order to be able to have sex. These were situations in which women felt a lack of control over their own bodies and sexual health.

"I don't know if I could have sex with people all week without doing drugs they do it for money I don't think I could do that man" (Elizabeth, 37 years old; focus group).

As one may expect, when sex was forced on women they did not have any control over protecting their sexual health (and lives). WOST expressed feeling powerless over experiencing violence. Several had experienced violence throughout their lives, in different forms and perpetrated by different people (see page 106). They felt unable to stop this from happening to them as they felt it was not dependent on them but their life situation. In most cases, they felt powerless and helpless over changing this. One participant explained how she had "learnt" to dissociate her body and her mind once she had been sexually assaulted. This was her only and last resource in a situation that was imposed upon her and in which she *only* expected to survive.

"After that [sexual assault initiated] *it's too late and you're just thinking 'Fuck. Let me live through this. Whatever happens to me in… whatever happens to me now, let me survive it'. That's all that's going through your head. That and like 'Blank your body from your mind, blank your body from your mind. This isn't happening to you, it's only happening to the body. Blank your body from your mind'" (Amelia, 52 years old; interview).*

Negotiating condom use was challenging for some women as they generally felt disempowered when discussing sex and sexual health, and discussing condom use. Some WOST believed that condoms had been produced for men and there was a lack of methods oriented to women. Thus, using male condoms gave men more control in sexual relationships and on women's bodies and sexual health. Female condoms were seen as a method that could actually give women more control, although these were not widely used. A few participants called for the development of new methods that were designed for women.

"A bit difficult initially [using female condoms]*, I mean certainly it's quite strange, you have to get in a strange position but once, yeah I think, I think they're* [female condoms] *good because it puts it more in your house, you're in control then, you know" (Virginia, 41 years old; focus group).*

Women felt more in control in transactional sex as they felt more empowered to negotiate condom use with clients, compared with other sexual partners, as it was "part of the contract" of exchanging sex. Besides, using condoms with clients was a way for workers to gain control over their bodies and sexual health.

"I also found that I acted completely, like on purpose as well, well not on purpose, completely opposite to what I actually, how I would actually, how I had acted like in a sexual relationship that I wanted to have. I would act completely opposite and I was kind of more… stronger with them [clients; negotiating condom use] *because… it just made it all a lot easier* [use condoms to cope with transactional sex encounters]*" (Emma, 27 years old; interview).*

Some participants called for the need for women to be more empowered and encouraged to take control over their own bodies and lives. WOST described feeling more empowered when they were recovering from their drug use, and as they aged. Those that were not using "hard drugs" felt grateful for having got into OST and the social and professional support that they had received. Despite the need for support, women considered that their own willpower was key in recovering their lives and protecting their (sexual) health.

"Yeah well, like I said, they [men] don't wear it [condom] *then they ain't gonna get it* [sex]*. Simple as that. I think women, women need to put their feet down, you know, stop being soft you know and show them "Well if you ain't gonna wear it we are not gonna have it". As simple as that. "You put this on then we can get and do whatever… and whatever, whatever", you know. But I think women need to put their feet down and be a bit stronger to be honest (…) Show them who's boss" (Teresa, 34 years old; interview).*

4.2.3.2. Love, trust and self-worth

Love, trust and self-worth were key elements in WOST's narratives. These were present in discussions about themselves, relationships with significant others, and health and social care professionals.

Women expressed their need for love and called for shared humanity. They explained how love had been one of the drivers of their behaviour, including in relation to their sexual health. The need for love and intimacy was mentioned as one of the barriers to condom use. Condoms were often perceived as a barrier for physical and emotional intimacy, as they were a physical and unnatural element between women and their partners. Some participants expressed that, for that reason, they

would not use condoms in steady romantic relationships. On the contrary, transactional sex workers would use condoms to create a physical and emotional barrier between them and their clients. Using condoms was somehow a way for them to cope with sex exchanges with clients. However, women engaging in transactional sex were more unlikely to use condoms in other sexual encounters. This was because they associated the use of condoms with selling sex. Using condoms with non-clients led them to feeling as if they were selling sex, which was emotionally challenging to cope with and created a barrier for love and intimacy.

"In my conversations with other girls [transactional sex workers] *they don't really, unless it's a financial transaction they will not use condoms. They don't use them. Maybe because, yeah… probably actually because they don't want to think of it as being, you know, whereas maybe a girl that is going to a club and has a one night stand, you know, she doesn't all of a sudden becomes a prostitute when she uses a condom. Girls here* [service for sex workers]*, I've just thought of it and I think I am probably right, hmm… if they have casual sex with a boy they like when they pull out that condom they are… putting on their prostitute persona" (Amelia, 52 years old; interview).*

Overall, WOST felt marginalised and dehumanised in most interactions with other people. This included interactions with family and friends, health and social care professionals, and society in general. They highlighted that getting treated in a "humane manner" was vital for WOST to engage in health and social care services. It also was a significant step towards self-love and self-care. It seemed that participants longed to feel loved and connected to other people whereas they feared getting emotionally and physically hurt by others. This was due to the history of violence, social isolation and neglect and stigma almost all of the women taking part in this research had experienced. In relation to this, a few participants mentioned having had "one night stands" and pleasing men despite their own needs, just to look for affection.

"When I was using and I was street homeless and it was as if you didn't exist. People wouldn't even look at you cause you didn't exist. You were the lowest, you weren't there. I think that was quite, quite horrible" (Emmeline, 35 years old; interview).

Women shared their feelings of love for their romantic partners, their children and other family members. Through women's narratives, it was clear that feeling loved by significant others was key in their journey towards recovering from drug addiction and caring for their health. Feeling loved translated into feeling supported and accepted by others. This was especially important as WOST experienced stigma and discrimination on a daily basis (see page 97) and usually felt worthless. One participant also talked about support networks among transactional sex workers, and how these helped increase her sense of self-worth (Amelia, 52 years old; interview). Participants shared how they had felt a lack of love in their lives. As a consequence of experiences of violence and

stigma, some participants did not feel worthy of love and affection. They had created emotional barriers that prevented them from getting affection from themselves and others.

"We are all human and we all wanna be liked and loved and wanted and… it's just that there is a lot of horrible people out there (…) People are so mean to people nowadays… there is no love in the world anymore I think. I think that you have to accept yourself though, but if you accept yourself and no one can get you… I mean, I try to put myself a star, that I'm okay, that I'm a tough person… (…) I put on, I try to act it cause I don't want people to see me weak and vulnerable and down, so… I try to just cover it up" (Marie, 29 years old; interview).

A few WOST explained how they had thought of pregnancy and motherhood as a means to stopping their addiction. However, in most cases pregnancy and motherhood did not stop their addiction. Some women expressed feeling guilty over not preventing pregnancy in the past, for the emotional pain that they had inflicted on their children (and families) due to their drug use. A few participants expressed guilt and sadness over their children being born with neonatal abstinence syndrome as women often could not stop using drugs during pregnancy. Almost all participants had had their children removed by social services, and these were traumatic events for them. Other women had terminations and miscarriages, or had given their children up for adoption. Some, were trying to recover their relationships with their children and families. Others had stayed away from having contact with them as they were ashamed of themselves and did not want to hurt their loved ones. Participants' love for their children was evident. Most had come to accept that they could not care for them due to their drug use, or felt undeserving of them. Others were fighting to get the custody of their children back, although they usually felt powerless and pessimistic about it as they knew it depended on their drug use. It became clear throughout the interviews that women's self-worth was negatively affected by how they perceived themselves in their relationships with significant others. As will be further developed in this chapter, WOST's feelings of worthlessness were related to their sexual health (e.g., increasing the chances of engaging in condomless sex). It is then vital to consider how women felt about themselves and in their relationships with significant others.

"You think a child is going to fix you but it don't (…) I had all [children] *six of mine taken at one point or another cause I've been in prison so many times then I came back out then I pick them back up thinking I can put the drugs down then I put them down and pick the drugs up so it's just addiction and all those things just don't matter none of them probably an addict lies by saying they do matter they don't matter for me as an addict none of those things matter" (Ingrid, 48 years old; focus group).*

Trust was also crucial. It was an important element in relationships with significant others (including romantic partners), health and social care professionals, and even transactional sex clients. In steady relationships, trust seemed to be positively associated with having condomless sex. If there

was trust in the relationship, women could feel more certain about being in a monogamous relationship and thus about their sexual health being protected. On the other hand, women sometimes expressed feeling disempowered to suggest condom use with their steady partners. This is because they feared their partners might get suspicious about them being unfaithful to them, breaking their partners' trust in them. Besides, suggesting using condoms in steady relationships had led to experiencing violence in the past among some participants (see page 106).

"The last relationship I had, he was very controlling, he was in charge of everything and I would never ask him to put a condom cause he would go mad, he would think that I had done something dirty with someone else, yeah" (Jane, 51 years old; interview).

Trust was also related to condomless sex with other sexual partners. For instance, if causal sexual partners were known (e.g., they were from the same social network), women appeared to be more likely to engage in condomless sex. Even with strangers, WOST could have sex without condoms if they trusted that the partner was not living with an STI or a BBV. Among women who engaged in transactional sex, trust in their clients was also relevant for them to feel safer. A few mentioned having regular clients that they trusted and had even helped them at a personal level (e.g., offering shelter). This seemed to make women's experiences of transactional sex work less challenging. For some, trusting that clients did not have an STI or a BBV was a factor in having condomless sex with clients when offered more money. However, some participants expressed their general distrust in men. They thought that men were usually unconcerned and lacked awareness over transmitting STIs and BBVs to women.

"Yeah… and you don't want that [men she knows to know that she is a transactional sex worker]*, you don't want to walk pass a group of men and… and… they all know that they can buy you at a drop of a hat, you know. It's gotta be a stranger, someone that you are not gonna see them again, or somebody who is going to turn into a friendly, respectful* [client] *(…) Yeah there's a financial aspect too I but that's not the main component, you know" (Amelia, 52 years old; interview).*

Self-worth was another emotional factor that seemed to be associated with WOST' sexual health. Feelings of worthlessness were present in most discussions with participants. Some women linked these feelings of worthlessness expressed with a lack of care for their (sexual) health and own life. Feeling worthless had led some women to have condomless sex, as they felt no care or love for themselves. In this situation, a participant explained how she even hoped to get HIV so that *"it could take her away from it all" (Florence, 37 years old; interview).* A few participants called for the need for women to respect and care for their lives, to love and give worthiness to themselves. They however mentioned that this could be challenging during periods of heavy drug use.

"I don't even know cause you probably know the risk but you don't give a shit how would you give a shit about yourself if you are using drugs I don't worry about myself." (Ingrid, 48 years old; focus group).

"People have died in front of me and I'm… and I feel guilty saying this cause I know it shouldn't be but I can't change how I think and how I work. But I've seen people dying in front of me and I still do that thing [use drugs] *that caused them to die… cause it's not, it's not a risk until I've gone through it. And also, with homeless people is like "What else do we have to lose?", they've taken everything from us. By the point that I am, our lives aren't worth that much. They might be to other people, to us… they're not worth that much so the risk becomes a lot less than it would be to you. You would assess the risk of my life greater that I would. Does that make sense? I know that's sad. Sorry…* (cries)*" (Joan, 27 years old; interview).*

4.2.4. Intersectional stigma

The intersection of different stigmatised identities of WOST was one of the main findings of this research. The findings in relation to intersectional stigma experienced by WOST were written and submitted for publication to the journal *Social Science & Medicine*. The first submission was on the 13th of June 2018. The manuscript went through three rounds of revisions and was accepted for publication on the 14th of January 2019. The paper was published on 17th of January 2019. The publication is presented below as it is published online.

4.2.4.1. Publication

Reference: Medina-Perucha, Scott, J., Chapman, S., Barnett, J, Dack, C. & Family, H. (2019). A qualitative study on intersectional stigma and sexual health among women on opioid substitution treatment in England: Implications for research, policy and practice. *Social Science & Medicine, 222,* 315-322.

Social Science & Medicine 222 (2019) 315–322

Contents lists available at ScienceDirect

Social Science & Medicine

journal homepage: www.elsevier.com/locate/socscimed

A qualitative study on intersectional stigma and sexual health among women on opioid substitution treatment in England: Implications for research, policy and practice

Laura Medina-Perucha[a,*], Jenny Scott[a], Sarah Chapman[a], Julie Barnett[b], Charlotte Dack[b], Hannah Family[a]

[a] Department of Pharmacy & Pharmacology, University of Bath, UK
[b] Department of Psychology, University of Bath, UK

ARTICLE INFO

Keywords:
Opioid substitution treatment
Inequalities
Sexual health
Sexually transmitted infections
Blood-borne viruses
Intersectional stigma
Intersectionality theory
Women's studies

ABSTRACT

Rationale: Women on opioid substitution treatment (WOST) are at high risk for sexually transmitted infections and blood-borne viruses (HIV, Hepatitis B and C). This heightened risk is rooted in social and health inequities. Experiencing stigma is considered to have an important role in maintaining these inequities and is a barrier to promoting sexual health.

Objective: The aims of this study were to examine (1) the experiences of stigma of WOST, and (2) how experiencing stigma may influence WOST' sexual health.

Method: Twenty semi-structured interviews with WOST were conducted between October 2016 and April 2017 in South West England (UK). Data were analysed using Framework Analysis.

Results: Women's narratives highlighted the intersection of stigma associated with distinct elements of women's identities: (1) female gender, (2) drug use, (3) transactional sex, (4) homelessness, and (5) sexual health status. Intersectionality theory and social identity theory are used to explain sexual health risks and disengagement from (sexual) health services among WOST. Intersectional stigma was related to a lack of female and male condom use and a lack of access to (sexual) health services.

Conclusion: The approach taken goes beyond individualistic approaches of health promotion and provides suggestions to improve future research, policy and practice. It identifies stigma as a crucial element to address when promoting sexual health among WOST. Importantly, this study focuses on tackling social and health inequities and in doing so advocates for human and women's rights.

1. Introduction

Social inequities involve disparities within different social groups, including women and people who use drugs, that arise from an unequal social, economic and political power. Social inequities involve a violation of human rights as different communities and populations are unequally deprived from exercising their civil, political, economic, social and cultural rights (Krieger, 2014; World Health Organization, 2018a). Health *inequalities* are defined as differences in health status or in the distribution of health determinants between different populations. In contrast, *inequities* refer to unnecessary, avoidable, and unjust access to health. Inequities are often the result of health inequalities (World Health Organization, 2018b). The term inequity is used throughout this article as opposed to inequality. Health inequities refer to preventable differences between social groups, to access resources to improve and maintain health and health outcomes. These differences are also evident in the disparities in the quality of health and healthcare access across different populations or communities (World Health Organization, 2018a). Both social inequities and health inequities are, at their core, a violation of human rights.

One powerful source of health inequities is stigma. Initial theoretical understandings of stigma were developed by Erving Goffman, who defined stigma as a *'mark'* of an attribute that was socially devalued (Goffman, 1963). According to Goffman, stigma should be understood as a *'language of relationships, not attributes'* (p.3). Stigma results from the dichotomy between socially devalued and socially valued attributes, and maintains social inequities by segregating individuals into stigmatised and non-stigmatised groups (Earnshaw and Chaudoir,

* Corresponding author. Department of Pharmacy & Pharmacology, University of Bath, BA2 7AY, Bath, UK.
E-mail address: l.medina.perucha@bath.ac.uk (L. Medina-Perucha).

https://doi.org/10.1016/j.socscimed.2019.01.022
Received 13 June 2018; Received in revised form 8 November 2018; Accepted 14 January 2019
Available online 17 January 2019
0277-9536/

2009). More recent conceptualisations of stigma have critiqued definitions which overlook the experiences of stigmatised individuals, and taken an individualistic approach (Link and Phelan, 2001, 2014; Deacon, 2006). These approaches have defined stigma as a social process shaped by the social context and the contingencies of social, economic and political power (Deacon, 2006; Link and Phelan, 2001, 2014; Joffe, 1999). When people assign labels to human differences, dominant cultural beliefs and social norms give meaning and value to these labels (Link and Phelan, 2001). Stigma can also be considered as a form of symbolic power, as social power might be gained through stigmatising *other* individuals and/or social groups (Link and Phelan, 2001, 2014; Bourdieu, 1987). In this article, stigma is defined as '*a social process involving the segregation of individuals and social groups, based on socially valued and devalued attributes that are contingent on inequities in social, economic and political power*'. The term "stigma" will be used generically to refer to any experience of stigma, whereas the use of the plural term "stigmas" will be used when referring to the experience of multiple and distinct stigmas. Particular terms will be used for specific types of stigma.

Drug-using populations experience social and health inequities. People using drugs are at higher risk of numerous health conditions, including sexually transmitted infections (STIs), HIV and other blood-borne viruses (BBVs) (i.e., Hepatitis B and C) (Cavanaugh et al., 2010; Des Jarlais et al., 2011; Hwang et al., 2000; UNAIDS, 2014, 2016, 2015; World Health Organization, 2016a, d, b, c). This heightened risk can be explained, not only due to unsafe drug use (i.e., sharing needles and paraphernalia when injecting drugs), but sexual risk behaviours (i.e., condomless sex). Among women using drugs, sexual risk behaviours often result from a hightened vulnerability to violence and associated sexual health risks out of women's control (e.g., condoms are commonly not used in non-consensual sex) (Booth et al., 2000; Tyndall et al., 2002; Strathdee, 2003; Strathdee and Sherman, 2003; Strathdee and Stockman, 2010; El-Bassel et al., 2005, 2011; Des Jarlais et al., 2011; Edelman et al., 2014; Kulesza et al., 2016). Women are particularly at risk of violence mostly because of gender inequities that stem from socially constructed gender roles based on unequal socioeconomic and political power (Moss, 2002; Palència et al., 2014; Dunkle et al., 2004; El-Bassel et al., 2005, 2011). There is, nonetheless, a lack of research on gender-related stigma among drug-using populations.

People using drugs are a highly stigmatised group (Kulesza et al., 2016; Earnshaw et al., 2013; Room, 2005; Luoma et al., 2007; Lloyd, 2013; Link et al., 1999). Experiencing stigma has been associated with poor adherence to medication, poor help-seeking behaviour and may be associated with sexual health risks (Vanable et al., 2006; Earnshaw and Chaudoir, 2009). However, the evidence is conflicting and suggests variable relationships between different dimensions of stigma and health outcomes (Varni et al., 2012; Earnshaw and Chaudoir, 2009). Drug use-related stigma often overlaps with stigma associated with other interdependent social categories (e.g., female gender, transactional sex – the exchange of sex for money and/or goods, including drugs – HIV status, race, social class, incarceration history, weight, and sexual orientation) (Mahajan et al., 2008a; Stangl et al., 2013; Chambers et al., 2015; Sangaramoorthy et al., 2017; Loutfy et al., 2012; Parker and Aggleton, 2003; Kulesza et al., 2016; King et al., 2013; Bowleg, 2008; Deacon, 2006; Deng et al., 2007; Shields, 2008; McCall, 2005; Rice et al., 2018). Personal and social identity can actually be understood as multidimensional rather than the unidimensional product of a combination of personal attributes and belonging to certain social groups (Deaux, 1993; Rosenberg, 1988). Taking this approach, an individual can experience multiple overlapping stigmas (intersectional stigma), that refer to associations between social identities and structural inequities (e.g., in relation to gender or engaging in transactional sex).

This study is part of a project that aims to develop a sexual health service for women receiving opioid substitution treatment (WOST) in community pharmacies in England (UK). The focus of this study is on how experiences of stigma may shape sexual health among WOST. This paper presents the experiences of intersectional stigma among WOST, and the potential relationship between the experience of stigma and sexual health risks among WOST. This paper addresses two research questions: 1) What are the experiences of stigma of WOST? And 2), How does experiencing stigma influence WOST' sexual health?

2. Methods

Twenty semi-structured face-to-face interviews were conducted with WOST. The interviews were conducted at two drug services in Bath and Midsomer Norton (UK) ($n = 19$) and a service for sex workers in Bristol ($n = 1$), over a seven-month period (October 2016–April 2017). All interviews were audio-recorded and transcribed verbatim. The interview schedule was devised based on the study's aims and objectives, previous research, and inputs from a patient advisory group. The foci of the interviews were on perceived sexual health risks and women's experiences of receiving opioid substitution treatment in community pharmacy. Data collection and analyses were conducted by the lead author (LMP), supervised by the other authors.

2.1. Recruitment strategy

A venue-based sampling method was used for this study as it is often successful for recruiting hard-to reach populations such as WOST (Muhib et al., 2001; Thomas and Freisthler, 2016; Weir et al., 2012; Raymond et al., 2010). Participants were opportunistically recruited in two drug services and a service for sex workers. The services' staff acted as gatekeepers by identifying eligible participants. The inclusion criteria were (1) women, (2) over 18 years of age, and (3) on/having received opioid substitution treatment. The researcher (LMP) introduced herself and the study to potential participants and gave women the opportunity to ask questions and express concerns. Once women agreed to take part in the study, the researcher either conducted the interview on the same day or agreed to meet at a future date when the participant had an appointment at the service. The researcher (LMP) approached 75 women to take part in the study: 20 agreed (26.6%) and 55 declined (73.3%). The number of women informed about the study by the services' staff is unknown to the research team.

2.2. Procedure

Participants took part in a semi-structured face-to-face interview for around 1 h (between 25 and 80 min). The interviewer (LMP) adjusted the timings of the interviews based on women's needs (some participants had other appointments, or felt unwell during the interview). Written and verbal consent were obtained before the start of the interview. All women were made aware of their right to opt-out of the study until data analysis and of its non-disclosure policy. After the interview, all participants were asked to fill in a non-standardised questionnaire including questions on demographics, drug use and sexual history and sexual health. All participants were given a verbal and written debrief, and a £10 shopping voucher to thank them for their participation.

This study obtained ethical approval from the English National Health Service (NHS Ethics: IRAS Id. 20570, REC 16/NW/0432) on 17th August 2016. Quotations in this paper are reported verbatim and the names of the participants have been changed to ensure anonymity.

2.3. Data analyses

This study followed an inductive, interpretivist and constructionist approach. It thus frames "reality" as socially constructed and embraces interpretation and subjectivity within the research. The researchers' values are thus an element influencing the research process. We have sought to ensure the quality of this research by being sensitive to the

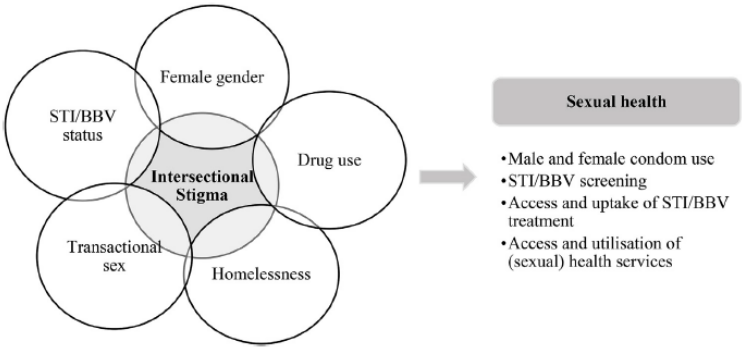


Fig. 1. Intersectional stigma and sexual health among WOST.

context of the research, using theory and methodology rigorously, offer transparency and coherence, and ensuring the impact and importance of this study (Yardley, 2017).

The interviews were analysed using Framework Analysis (FA) (Ritchie and Spencer, 1994), an approach to analysing qualitative data. The aim of FA is to classify and organise the data according to key themes, in order to develop a hierarchal thematic framework. FA is a case- and theme-based approach, as it allows the combination of data from particular participants and the analysis of data across participants. Contrary to other methods, FA manages summarised data rather than "raw" or original data, although the link to original data is always retained. There are five stages to FA: 1) familiarisation with the data, 2) identifying a thematic framework, 3) indexing, 4) charting, and 5) mapping and interpretation. For more details on the different steps of FA, see Ritchie and Spencer (1994), and the work by Gale et al. (2013). The lead author (LMP) led the conduct of the analysis. All of the authors were involved to varying degrees in clarification and adjustment of the analysis. The relevant data can be obtained on request from the lead author (LMP). The analysis was assisted with NVivo10 software. Descriptive analyses were performed to analyse the data from the questionnaires, using IBM SPSS Statistics 22 software.

3. Results

3.1. Participant characteristics

3.1.1. General demographics

Twenty women aged between 27 and 56 (M = 39.50, SD = 9.65). Eighteen women were British (90%), one was White European (5%) and one was Black African (5%). All participants had English as their primary language. Eight women had no academic qualifications (40%), seven had finished secondary school education (35%), three had finalised university entry-level education (15%), and two completed undergraduate studies (10%). Most participants (n = 16) were not working at the time of the interviews (80%). Also, 16 women had an annual income below £10,000 (80%). Most women were "in a relationship" (n = 8, 40%) or "single" (n = 7, 35%) when they took part in the study. Women had between none and five children (M = 1.58, SD = 1.39).

3.1.2. Opioid substitution treatment and substance use

All women were receiving opioid substitution treatment (OST). Fourteen were on prescribed methadone (70%), five on buprenorphine (25%), and one on Suboxone – a combination of buprenorphine and naloxone – (5%). Three participants were recovering from drug addiction, and they were taking small doses of OST. Two others had recently started OST. All participants currently used other drugs. The most commonly drugs of use were: tobacco (n = 20, 100%), heroin (n = 18, 90%), alcohol (n = 17, 85%), crack cocaine (n = 15, 75%), benzodiazepines (n = 15, 75%), cannabis (n = 15, 75%), and codeine (n = 13, 65%).

3.1.3. Sexual history and sexual health

Most women had had sex with men only (n = 14, 70%), five with both men and women (25%) and one with women only (5%). Eight women had engaged in transactional sex at some point in their lives (40%). Most women reported having been sexually abused (n = 17; 89.5%).

Eleven women were currently not having sex (55%). Of the ones that were sexually active, five did not use any methods to prevent STI/BBV transmission (55.5%), and four used male condoms (44.4%). Most women had screened for STIs and BBVs at least once (n = 17, 83.3%). Seven women had been diagnosed with Hepatitis C (35%), four with chlamydia (20%), two with genital warts (10%), two with pubic lice (10%), two with scabies (10%), one with gonorrhoea (5%), and one had the human papillomavirus (5%).

3.2. Main findings

Our findings suggest that intersectional stigma seemed to be associated with sexual health. Women's experiences of intersectional stigma were associated with female gender, drug use, women's engagement in transactional sex, homelessness, and STI/BBV status (see Fig. 1). The intersection of women's interdependent stigmatised identities shape women's social identities and social and health inequities. More specifically, intersectional stigma was associated with a lack of condom (male and female) use, and was a barrier to accessing (sexual health) services.

3.2.1. Gender-related stigma

All women in this study had experienced gender-related stigma (i.e., a social process involving the social devaluation of individuals of the female gender). Gender-related stigma was rooted in normative socially-constructed gender roles (e.g., women are expected to be accommodating). These roles led to gender inequities and women's limited access to social and economic *power* in relation to men. Stigma based on their female gender was particularly embedded within their relationships with sexual and romantic partners but was also present in women's relationships with family members, and other people within women's' social network.

> *"Yeah, if you say something, or even if you hit them [partner] back (…) Then it gets worse because they have to be the powerful one. They always have to be the one that it's in control and more powerful" (Emmeline,*

Women experienced overt stigmatisation from loved ones and other people making them aware of negative societal attitudes towards drug use. It led to women losing their relationships with family members and friends, and losing touch with their identities prior to starting using drugs. Drug use was a source of shame and increased worthlessness, which led to fear of disclosing drug use. Non-injecting women perceived themselves in a *higher social* position compared to those who injected drugs. This suggested a *hierarchy* in the levels of drug-related stigma among WOST, depending on their injecting/non-injecting status.

> *"It's dirty, it's dirty so you can yeah. That's what they've [people] said about me before and I haven't even injected. It's just the whole thing… And I was with my family, my dad's girlfriend like started all that [stigmatisation] off, so that [stigmatisation] was in my family… quite horrible…" (Sylvia, aged 27).*

Women's experiences and engagement with social and health care services was dependent on how stigmatised and dehumanised women felt attending these services. For instance, it was common for women to experience open discrimination in community pharmacies, from pharmacy staff and other pharmacy clients, when they were taking their OST. Drug use-related stigma was also associated with the stigma attached to OST, and especially methadone. Again, women felt isolated and defenceless as pharmacy staff would often not intervene, allowing stigmatising and discriminatory comments. Overall, women had learnt to distrust the system.

> *"Certain chemists I've been to they just look at you all up like a drug user basically (…) cause they're getting their meth, so… it's just drug use… (Sylvia, aged 27).*

Women had internalised drug use-related stigma. Internalised stigma lowered women's sense of self-worth, and was a barrier to engaging in health protective behaviours (e.g., using condoms) and accessing services. Women felt powerless to change their situation, mainly when their lives were dominated by drug-seeking and drug-using behaviours. They experienced shame and self-blame, which seemed to be associated with a delay or avoidance of social support and professional help-seeking for (sexual) health. In such situations, maintaining health and preventing disease were not within women's priorities or concerns. For one woman, getting a terminal BBV had been seen on several occasions as preferable to the situation she was in day to day.

> *"Sometimes you hope that you catch something, or… you know, because… to take you away from it all… you don't wanna live like this. There's many times that I've felt like that" (Florence, aged 37).*

3.2.3. Transactional sex-related stigma

Women's narratives showed that transactional sex is highly stigmatised. This was the experience of women who had engaged in transactional sex and those who had not. The latter were sometimes stigmatising towards the former. All women seemed to understand the pathways towards initiating transactional sex, and had been offered the opportunity to exchange sex for money or drugs. Sex was a survival tool for those women who sold sex. Those who did not, often engaged in illegal activities (e.g., theft) to sustain themselves and, in some cases, their family. It was common for women to initiate in transactional sex through drug dealers and romantic partners. Women reported that dealers could be quite coercive taking advantage of their vulnerable position, especially when they were in drug withdrawal and were then more likely to seek drugs *at all costs*. Women explained how thet were *sexually objectified* and reduced to the sum of their body parts and their sexual function, *"I am not a doll" (Amelia, aged 52)*. This exemplifies intersectional stigma among WOST. Gender and drug use-related stigma appeared to be associated with women's initiation into transactional sex, and transactional sex-related stigma.

> *"Yeah, yeah. Most of them [dealers] will ask [for sex] and they know when you're at your lowest. They can see it a mile away. It's like they are predator aren't they?" (Emmeline, aged 35).*

Transactional sex workers tended to use male condoms consistently with clients, in this situation commonly being the ones to provide condoms and initiate the negotiation of condom use. Using condoms was a way for women to create an emotional barrier to cope with transactional sex encounters, allowing them to feel empowered and increase their sense of self-worth. Women expressed confidence when negotiating condom use with clients, as opposed to their fear and lack of confidence with romantic partners. Clients often suggested having condomless sex in exchange for a larger amount of money. Although most women refused to engage in condomless sex with clients, some agreed often based on the client's appearance, *"If they are a horrible old guy you just say "No", but if they are a young guy, fit and all you think "Oh, yeah"" (Harriet, aged 41)*. Other times, women felt forced to engage in condomless sex not to lose clients to other workers. Some clients were violent and forced condomless sex when women refused to have sex without using condoms. Negotiating the price of transactional sex services had to be done carefully. Transactional sex-related stigma was higher among women who exchanged sex for lower amounts of money, and street workers, as opposed to other transactional sex workers. Women's decisions over selecting clients and using condoms were dependent on how high/low women were within the social hierarchy among transactional sex workers, and related stigma.

> *"It depends on the level you are at. If you are a street worker no, not so much. You are pretty much lower than low. Depending on what level you are, it's like when I was working I said that if I didn't want to go with a client I didn't. If he wouldn't wear a condom it wouldn't happen. And someone stood outside the door and things like that, you know what I mean so it was all about doing it properly…" (Joan, aged 27).*

Gender-based violence was common among transactional sex workers. Women used systems of protection to prevent situations of physical and sexual violence (e.g., telling other workers about their location). However, women felt constantly at risk, especially when working in the street. Given that transactional sex is criminalised in the UK, women felt defenceless and did not always report violent encounters with clients to the police. Women felt that legislation did not protect their safety nor the clients'. Transactional sex was often not disclosed to family and friends, due to the fear of being stigmatised, discriminated and even socially excluded. One participant also mentioned how she only sold sex to strangers to prevent men who knew her trying to *"buy her" (Amelia, aged 52)*.

The only place where transactional sex workers did not feel stigmatised was a service for sex workers, where one of the participants was interviewed.

> *"But, you know, the emotional and psychological support is… is the one place where we don't feel hmm… beneath, at the bottom of the pile… you know, the muck off someone's shoe, you know… We are people here, you know, we are just women." (Amelia, aged 52).*

3.2.4. Homelessness-related stigma

Women's experiences of homelessness were tainted by stigma. Women living on the streets felt socially isolated. They felt invisible, judged and mistreated by other people, to the extent of being dehumanised. Women advocated that stigma and the resulting social exclusion and misrepresentation of homeless people should be addressed by educating people about homelessness. There was an intersection of drug and homeless-related stigma, as homeless people who used drugs were perceived to be have a lower social status.

> *"Yeah, you are like an animal, you are not the same. People that are selling the "Big Issue", people get looked at like nothing, like "I'm not getting nothing. I'm not giving you money". But they don't… it's hard to explain that you don't want that money, you need that money"*

(Emmeline, aged 35).

Homelessness-related stigma often led to random violence, including physical and sexual assaults. Violence was more prevalent towards homeless women. Homeless women got sexual propositions daily, which reflects the sexual objectification of women and relates to gender-related stigma. Drug use was sometimes initiated to cope with homelessness, rather than drug use leading to homelessness. Women felt defenceless as violent assaults were either unreported or disregarded by police officers, who also were stigmatising towards homeless people. The police and other government workers were then untrusted, which reinforced women's feelings of helplessness.

"That first… we don't go to the police because they can't be trusted, they are the enemy of the homeless people. There's nowhere we can go where we can say they're on our side" (Joan, aged 27).

Homeless-related stigma also manifested at the structural level. Homeless women could not access health services easily, as they thought that they could not register with a general practitioner because they did not have an address. Other restrictions and the lack of services for homeless people prevented homeless women accessing (sexual) health services. It seemed that women living on the streets were even more socially excluded and invisible. Women expressed how health policies do not seem to address the needs of homeless women, which may further emphasise homeless women's feelings of having been assigned to the *"not normal"* and *"unwelcomed part"* of society.

"But as it stands now the only place that we can go to is our GP. Well, I don't have a GP so that is a problem" (Joan, aged 27).

3.2.5. STI/BBV status-related stigma

Women's narratives highlighted sex and sexual health as taboo and stigmatised topics. Some women were embarrassed to discuss sex and sexual health, although some were not. Stigma related to STI/BBV status (i.e., the social process in which individuals that have an STI or a BBV are socially devalued) is rooted in these social taboos. A few women in the study had been diagnosed with Hepatitis C. The diagnosis usually was accompanied with feelings of guilt and self-stigma (i.e., stigma directed to oneself) that made women want to isolate themselves socially, *"Yeah, I feel I've got dirty blood running through me at the moment. So I'm having a bit of a wall on me at the moment because of it" (Jane, aged 51).* Women's feelings of worthlessness made them feel *"not worth living"*. Feeling love was a way for women to feel more valued and feel worth enough to take steps to protect against STIs and BBVs.

"Until you have someone that loves you as well and you think 'Oh, life is worth living. It's not worth catching HIV…', you know all the [infections] it's not worth catchin' you know…" (Florence, aged 37).

Disclosing an STI or BBV positive diagnosis was a challenging undertaking that women feared. Compared to men, women were considered *"slags"* and *"sluts"* if they had an STI or BBV. This was directly related to sex as a taboo topic, and the intersection between gender and STI/BBV status-related stigma. STI and BBV-related stigma was high, especially as an STI/BBV diagnosis was often associated with using drugs and intersected with drug-related stigma. None of the women interviewed for this study disclosed a HIV positive diagnosis. However, women's narratives highlighted that, although stigma around HIV had reduced over the past few years, HIV-related stigma is still high and could lead to social isolation. HIV was perceived to be more stigmatised than other BBVs and STIs.

Women felt judged accessing sexual health services. They thought of other people thinking that they had *"done something dirty"*. Some women recalled having had negative experiences with health professionals during sexual health consultations. Health professionals were often stigmatising and judgmental towards women and discouraged them from seeking help for sexual health concerns. The lack of trust and fear of stigma from health professionals and other service users set a barrier to women accessing sexual health services. Women highlighted the need to enhance professionals' consultation and communication skills, to reduce drug use- and STI/BBV-related stigma.

"Hmm… well when you go to a sexual health clinic everyone knows what you're there for, you know what I mean? You get to the place where everyone is sitting there and you don't know what they're thinking, if they're thinking 'Oh, she's got Chlamydia'." (Marie, aged 29).

There was an overall a lack of knowledge around STIs and BBVs. According to women, the main education agents (school teachers and parents) usually restricted the amount of information given, due to stigmatising views on sex and sexual health. Women learned about sex and sexual health through the media, peers, and personal experience. Women highlighted the importance of improving sexual health education in the UK to reduce the taboos around sex and sexual health, and ultimately prevent STI/BBV transmission and unwanted pregnancies.

4. Discussion

Women in this study experienced stigma based on interdependent identities related to their gender, drug use, involvement in transactional sex, homelessness and STI/BBV status. This intersectionality of stigmas creates unique experiences of social exclusion and marginalisation that map on to social inequities. For example, WOST who are also homeless and engage in transactional sex may have a qualitatively different experience of stigma, and encounter higher levels of stigma, compared with WOST who are not homeless or transactional sex workers. In all cases, intersectional stigma seems to increase social invisibility. Women in this study expressed how they were disregarded by the system (healthcare, legal, political system). This socio-structural neglect has disempowering effects that appear to have an influence on women's sexual health behaviours (i.e., using condoms), and access to (sexual) health services (e.g., sexual health screening or treatment uptake).

Health behaviour and outcomes have traditionally been approached at the individual level, but health and well-being are not excluded from the influence of social and structural elements (Jetten et al., 2012; Johnson and Acabchuk, 2018). Intersectionality approaches have been a central tenet of feminist research in the last few decades, and it has engendered activist science to inform policy towards addressing social and health inequities. Intersectionality goes beyond individual-level factors to explore social and structural elements of social (and health) issues (e.g., gender-based violence) (Warner, 2008; Shields, 2008; Mahajan et al., 2008b; Campbell, 2006; Crenshaw, 1989; Hancock, 2007), and should be applied to approaches to promote sexual health among women using drugs (Auerbach and Smith, 2015).

Social identity approaches such as Social Identity Theory (Tajfel and Turner, 1979; 1986) and the Self-Categorisation Theory (Turner et al., 1987; 1985), can provide an explanation on how intersectional stigma may be related to women's sexual health. According to social identity approaches, individuals form a sense of self through their belonging to distinct social groups. The findings from this study seem to indicate that intersectional stigma, and the associated socio-structural neglect, may shape women's identity. Women felt undeserving of good health as a result of this shaped identity and did not feel worth enough to engage in health protective behaviours, such as using condoms or screening for STIs and BBVs. This finding debunks the assumption that everyone wants to be healthy, and thus presents a great challenge when promoting sexual health among WOST.

Our study suggests that individual-level explanations for sexual health should be replaced by approaches that acknowledge the impact of social and structural determinants of health. Our findings highlight gaps between the sexual health needs of WOST, and healthcare services and policies addressed to this group of women. They also highlight the need to provide specific sexual health services to WOST, and improve the quality of services that are already being offered to them.

Awareness of the stigmas that exist towards this group should be an essential element of health professionals' training, and more inclusive policies that account for the link between stigma and sexual health should be developed. It is also important to address the blame culture in relation to drug-using populations. This comes with re-prioritising the aims and focus of sexual health strategies, towards a more humanistic health promotion strategy that addresses social and health inequities and advocates for human rights.

Feminist approaches are also an urgent issue to aim for equity between women and men and tackle gender-based violence. Safeguarding guidelines for professionals working with WOST should be created, to identify and address gender inequities and gender-based violence. These should include sexual exploitation through the coerced initiation to transactional sex. Equity should also be the aim of educational programmes on sexual health, to further challenge the current patriarchal system. Creating and implementing policies to decriminalise transactional sex are an ongoing debate. Our findings support previous claims on positive links between decriminalisation of transactional sex and positive sexual health (Decker et al., 2015; Weitzer, 2009; Morton et al., 2002). Improvements to policy should not only incorporate gender inequities into their agenda, but also the existent and prevalent social (and associated health) inequities among homeless people and those with an STI or BBV diagnosis.

4.1. Limitations

There are limitations to this study. First, this study may have overlooked the complexity of interrelations between intersecting stigmas as other relevant identities of WOST (e.g., race, sexual orientation or legal status) were not explicitly studied. Second, the cross-sectional and qualitative design of this study cannot infer causality, neither explain how disadvantage may increase through experiencing different intersections of stigma s and their impact on sexual health. It should also be acknowledged that the data analyses were influenced by the researchers' values and subjective interpretation of the data; thus it is possible that other researchers would have identified different themes in the data. Finally, data were collected in a small geographical area so findings may not be transferrable to other locations.

5. Conclusions

This study is the first to use intersectionality theory to investigate stigma among WOST. The findings highlight the complexity of the intersection of stigmas among WOST, in relation to women's female gender, drug use, involvement in transactional sex, homelessness, and STI/BBV status. This study suggests that intersectional stigma shapes women's identities, and is associated with a lack of male and female condom use as well as a lack of access to (sexual) health services. Findings can inform future research, the development of policies and protocols to address stigma, and design and improve (sexual) health services for WOST, including those in community pharmacy.

Declaration of interest

None.

Acknowledgments

We would like to thank all women who took part in this study. Also, the patient advisory group, professionals and academics who informed this research. This work is supported by a PhD Studentship awarded to the lead author (LMP) by the University of Bath.

References

Auerbach, J.D., Smith, L.R., 2015. Theoretical foundations of research focused on HIV prevention among substance-involved women: a review of observational and intervention studies. J. Acquir. Immune Defic. Syndr. 69 (Suppl. 2), S146–S154.
Booth, R.E., Kwiatkowski, C.F., Chitwood, D.D., 2000. Sex related HIV risk behaviors: differential risks among injection drug users, crack smokers, and injection drug users who smoke crack. Drug Alcohol Depend. 58, 219–226.
Bourdieu, P., 1987. What makes a class? Berkeley J. Sociol. 32, 1–18.
Bowleg, L., 2008. When Black + lesbian + woman ≠ Black lesbian woman: the methodological challenges of qualitative and quantitative intersectionality research. Sex. Roles 59 (5–6), 312–325.
Campbell, C.,D.,H., 2006. Unravelling the context of stigma: from internalisation to resistance to change. J. Community Appl. Soc. Psychol. 16 (16), 411–417.
Cavanaugh, C.E., Hedden, S.L., Latimer, W.W., 2010. Sexually transmitted infections among pregnant heroin- or cocaine-addicted women in treatment: the significance of psychiatric co-morbidity and sex trade. Int. J. STD AIDS 21 (2), 141–142.
Chambers, L.A., Rueda, S., Baker, D.N., Wilson, M.G., Deutsch, R., Raeifar, E., Rourke, S.B., Stigma Review, T., 2015. Stigma, HIV and health: a qualitative synthesis. BMC Public Health 15, 848.
Crenshaw, K., 1989. Demarginalizing the intersection of race and sex: a Black feminist critique of antidiscrmiation doctrine. In: Feminist Theory and Antiracist Politics, vol. 1989 University of Chicago Legal Forum 8.
Deacon, H., 2006. Towards a sustainable theory of health-related stigma: lessons from the HIV/AIDS literature. J. Community Appl. Soc. Psychol. 16 (6), 418–425.
Deaux, K., 1993. Reconstructing social identity personality and social psychology. Bulletin 19, 4–12.
Decker, M.R., Crago, A.-L., Chu, S.K.H., Sherman, S.G., Seshu, M.S., Buthelezi, K., Dhaliwal, M., Beyrer, C., 2015. Human rights violations against sex workers: burden and effect on HIV. Lancet 385 (9963), 186–199.
Deng, R., Li, J., Sringernyuang, L., Zhang, K., 2007. Drug abuse, HIV/AIDS and stigmatisation in a Dai community in Yunnan, China. Soc. Sci. Med. 64 (8), 1560–1571.
Des Jarlais, D.C., Arasteh, K., McKnight, C., Hagan, H., Perlman, D.C., Semaan, S., 2011. Associations between herpes simplex virus type 2 and HCV with HIV among injecting drug users in New York city: the current importance of sexual transmission of HIV. Am. J. Public Health 101 (7), 1277–1283.
Dunkle, K.L., Jewkes, R.K., Brown, H.C., Gray, G.E., McIntryre, J.A., Harlow, S.D., 2004. Gender-based violence, relationship power, and risk of HIV infection in women attending antenatal clinics in South Africa. Lancet 363 (9419), 1415–1421.
Earnshaw, V., Smith, L., Copenhaver, M., 2013. Drug addiction stigma in the context of methadone maintenance therapy: an investigation into understudied sources of stigma. Int. J. Ment. Health Addiction 11 (1), 110–122.
Earnshaw, V.A., Chaudoir, S.R., 2009. From conceptualizing to measuring HIV stigma: a review of HIV stigma mechanism measures. AIDS Behav. 13 (6), 1160–1177.
Edelman, N.L., Patel, H., Glasper, A., Bogen-Johnston, L., 2014. Sexual health risks and health-seeking behaviours among substance-misusing women. J. Adv. Nurs. 70 (12), 2861–2870.
El-Bassel, N., Gilbert, L., Witte, S., Wu, E., Chang, M., 2011. Intimate partner violence and HIV among drug-involved women: contexts linking these two epidemics–challenges and implications for prevention and treatment. Subst. Use Misuse 46 (2–3), 295–306.
El-Bassel, N., Gilbert, L., Wu, E., Go, H., Hill, J., 2005. HIV and intimate partner violence among methadone-maintained women in New York City. Soc. Sci. Med. 61 (1), 171–183.
Gale, N.K., Heath, G., Cameron, E., Rashid, S., Redwood, S., 2013. Using the framework method for the analysis of qualitative data in multi-disciplinary health research. BMC Med. Res. Methodol. 13, 117.
Goffman, E., 1963. Stigma: Notes on the Management of Spoiled Identity. Penguin, London.
Hancock, A.-M., 2007. Intersectionality as a normative and empirical paradigm. Polit. Gend. 3 (02).
Hwang, L.Y., Zack, C., Rickman, K., Holleman, M., 2000. Prevalence of sexually transmitted infections and associated risk factors among populations of drug ubusers. Clin. Infect. Dis. 31 (4), 920-926.
Jetten, J., H, S.A., Haslam, C., 2012. The case for a social identity analysis of health and well-being. In: Jetten, H.C., Haslam, S.A. (Eds.), The Social Cure. Psychology Press, UK, pp. 3–19.
Joffe, H., 1999. Risk and 'the Other'. Cambridge University Press, Cambridge.
Johnson, B.T., Acabchuk, R.L., 2018. What are the keys to a longer, happier life? Answers from five decades of health psychology research. Soc. Sci. Med. 196, 218–226.
King, E.J., Maman, S., Bowling, J.M., Moracco, K.E., Dudina, V., 2013. The influence of stigma and discrimination on female sex workers' access to HIV services in St. Petersburg, Russia. AIDS Behav. 17 (8), 2597–2603.
Krieger, N., 2014. Discrimination and health inequities. Int. J. Health Serv. : Plan. Admin. Eval. 44 (4), 643–710.
Kulesza, M., Matsuda, M., Ramirez, J.J., Werntz, A.J., Teachman, B.A., Lindgren, K.P., 2016. Towards greater understanding of addiction stigma: intersectionality with race/ethnicity and gender. Drug Alcohol Depend. 169, 85–91.
Link, B.G., Phelan, J., 2014. Stigma power. Soc. Sci. Med. 103, 24–32.
Link, B.G., Phelan, J.C., 2001. Conceptualizing stigma. Annu. Rev. Sociol. 27, 363–385.
Link, B.G., Phelan, J.C., Bresnahan, M., Stueve, A., Pescosolido, B.A., 1999. Public conception of mental illness: labels, causes, dangerousness, and social distance. Am. J. Public Health 89 (9), 1328–1333.
Lloyd, C., 2013. The stigmatization of problem drug users: a narrative literature review. Drugs Educ. Prev. Policy 20 (2), 85–95.
Loutfy, M.R., Logie, C.H., Zhang, Y., Blitz, S.L., Margolese, S.L., Tharao, W.E., Rourke, S.B., Rueda, S., Raboud, J.M., 2012. Gender and ethnicity differences in HIV-related stigma experienced by people living with HIV in Ontario, Canada. PLoS One 7 (12), e48168.
Luoma, J.B., Twohig, M.P., Waltz, T., Hayes, S.C., Roget, N., Padilla, M., Fisher, G., 2007.

An investigation of stigma in individuals receiving treatment for substance abuse. Addict. Behav. 32 (7), 1331–1346.
Mahajan, A.P., Sayles, J.N., Patel, V.A., Remien, R.H., Ortiz, D., Szekeres, G., Coates, T.J., 2008a. Stigma in the HIV/AIDS epidemic: a review of the literature and recommendations for the way forward. AIDS (London, England) 22 (Suppl. 2), S67–S79.
Mahajan, A.P., Sayles, J.N., Patel, V.A., Remien, R.H., Sawires, S.R., Ortiz, D.J., Szekeres, G., Coates, T.J., 2008b. Stigma in the HIV/AIDS epidemic: a review of the literature and recommendations for the way forward. Aids 22 (Suppl. 2), S67–S79.
McCall, L., 2005. The complexity of intersectionality. Signs 30 (3), 1771–1800.
Morton, A., Tabrizi, S., Garland, S., Lee, P., Reid, P., Fairley, C., 2002. Will the legalisation of street sex work improve health? Sex. Transm. Infect. 78 (4) 309-309.
Moss, N.E., 2002. Gender equity and socioeconomic inequality: a framework for the patterning of women's health. Soc. Sci. Med. 54 (5), 649–661 (1982).
Muhib, F.B., Lin, L.S., Stueve, A., Miller, R.L., Ford, W.L., Johnson, W.D., Smith, P.J., Community Intervention Trial for Youth Study Team, 2001. A venue-based method for sampling hard-to-reach populations. Publ. Health Rep. 116, 216–222.
Palència, L., Malmusi, D., De Moortel, D., Artazcoz, L., Backhans, M., Vanroelen, C., Borrell, C., 2014. The influence of gender equality policies on gender inequalities in health in Europe. Soc. Sci. Med. 117, 25–33.
Parker, R., Aggleton, P., 2003. HIV and AIDS-related stigma and discrimination: a conceptual framework and implications for action. Soc. Sci. Med. 57 (1), 13–24.
Raymond, H.F., Rebchook, G., Curotto, A., Vaudrey, J., Amsden, M., Levine, D., McFarland, W., 2010. Comparing internet-based and venue-based methods to sample MSM in the san francisco bay area. AIDS Behav. 14 (1), 218–224.
Rice, W.S., Logie, C.H., Napoles, T.M., Walcott, M., Batchelder, A.W., Kempf, M.-C., Wingood, G.M., Konkle-Parker, D.J., Turan, B., Wilson, T.E., Johnson, M.O., Weiser, S.D., Turan, J.M., 2018. Perceptions of intersectional stigma among diverse women living with HIV in the United States. Soc. Sci. Med. 208, 9–17.
Ritchie, J., Spencer, L., 1994. Qualitative data analysis for applied policy research. In: Bryman A, B.R. (Ed.), Analyzing Qualitative Data. Routledge, London, pp. 173–194.
Room, R., 2005. Stigma, social inequality and alcohol and drug use. Drug Alcohol Rev. 24 (2), 143–155.
Rosenberg, S., 1988. Self and others: studies in social personality and autobiography. Adv. Exp. Soc. Psychol. 21, 57–95.
Sangaramoorthy, T., Jamison, A., Dyer, T., 2017. Intersectional stigma among midlife and older Black women living with HIV. Cult. Health Sex. 19 (12), 1329–1343.
Shields, S.A., 2008. Gender: an intersectionality perspective. Sex. Roles 59 (5), 301–311.
Stangl, A.L., Lloyd, J.K., Brady, L.M., Holland, C.E., Baral, S., 2013. A systematic review of interventions to reduce HIV-related stigma and discrimination from 2002 to 2013: how far have we come? J. Int. AIDS Soc. 16 (3 Suppl. 2), 18734.
Strathdee, S.A., 2003. Sexual HIV transmission in the context of injection drug use: implications for interventions. Int. J. Drug Pol. 14 (1), 79–81.
Strathdee, S.A., Sherman, S.G., 2003. The role of sexual transmission of HIV infection among injection and non-injection drug users. J. Urban Health : Bull. N. Y. Acad. Med. 80 (Suppl. 3), iii7–iii14.
Strathdee, S.A., Stockman, J.K., 2010. Epidemiology of HIV among injecting and non-injecting drug users: current trends and implications for interventions. Curr. HIV/AIDS Rep. 7 (2), 99–106.
Tajfel, H., Turner, J.C., 1979. An integrative theory of intergroup conflict. In: Austin, E.G., Worchel, S. (Eds.), The Social Psychology of Intergroup Relations. Brooks/Cole, Monterey, CA, pp. 33–47.
Tajfel, H., Turner, J.C., 1986. The social identity theory of intergroup behavior. In: Worchel, S., Austin, W.G. (Eds.), Psychology of Intergroup Relations. Nelson, Chicago, pp. 7–24.
Thomas, C., Freisthler, B., 2016. Assessing sample bias among venue-based respondents at medical marijuana dispensaries. J. Psychoact. Drugs 48 (1), 56–62.
Turner, J.C., 1985. Social categorization and the self-concept: a social cognitive theory of group behavior. In: Lawler, E.J. (Ed.), Advances in Group Processes. JAI Press, Greenwich, pp. 77–122.
Turner, J.C., Hogg, M.A., Oakes, P.J., Reicher, S.D., Wetherell, M.S., 1987. Rediscovering the Social Group. A Self-Categorization Theory. Basil Blackwell, UK.
Tyndall, M.W., Patrick, D., Spittal, P., Li, K., Shaughnessy, M.V., Schechter, M.T., 2002. Risky sexual behaviours among injection drugs users with high HIV prevalence: implications for STD control. Sex. Transm. Infect. 78 (Suppl. 1), i170.
UNAIDS, 2014. 90-90-90: an Ambitious Treatment Target to Help End the AIDS Epidemic. Geneva.
UNAIDS, 2015. On the Fast-Track to End AIDS: 2016-2021 Strategy. Geneva.
UNAIDS, 2016. Do No Harm - Health. Human Rights and People Who Use Drugs, Geneva.
Vanable, P.A., Carey, M.P., Blair, D.C., Littlewood, R.A., 2006. Impact of HIV-related stigma on health behaviors and psychological adjustment among HIV-positive men and women. AIDS Behav. 10 (5), 473–482.
Varni, S.E., Miller, C.T., Solomon, S.E., 2012. Sexual behavior as a function of stigma and coping with stigma among people with HIV/AIDS in rural New England. AIDS Behav. 16 (8), 2330–2339.
Warner, L.R., 2008. A best practices guide to intersectional approaches in psychological research. Sex. Roles 59 (5/6), 454–463.
Weir, S.S., Merli, M.G., Li, J., Gandhi, A.D., Neely, W.W., Edwards, J.K., Suchindran, C.M., Henderson, G.E., Chen, X.S., 2012. A comparison of respondent-driven and venue-based sampling of female sex workers in Liuzhou, China. Sex. Transm. Infect. 88 (Suppl. 2), i95–101.
Weitzer, R., 2009. Sociology of sex work. Annu. Rev. Sociol. 35 (1), 213–234.
World Health Organization, 2016a. Combating Hepatitis B and C to Reach Elimination by 2030. Advocacy brief, Geneva.
World Health Organization, 2016b. Global Health Sector Strategy on HIV, 2016-2021. Towards ending AIDS, Geneva.
World Health Organization, 2016c. Global Health Sector Strategy on Sexually Transmitted Infections, 2016-2021. Towards Ending STIs, Geneva.
World Health Organization, 2016d. Global Health Sectors Strategy on Viral Hepatitis, 2016-2021. Towards Ending Viral Hepatitis. Geneva.
World Health Organization, 2018a. Equity. [Online]. WHO. Available from. http://www.who.int/healthsystems/topics/equity/en/ [Accessed 2018].
World Health Organization, 2018b. Health Impact Assessment (HIA). Glossary of terms used [Online]. Available from. http://www.who.int/hia/about/glos/en/index1.html [Accessed 2018].
Yardley, L., 2017. Demonstrating the validity of qualitative research. J. Posit. Psychol. 12 (3), 295–296.

4.2.4.2. Commentary

This publication highlights the experiences of intersectional stigma of WOST and how these relate to their sexual health and general wellbeing. There was an intersection of stigmas, associated with women's gender, drug use, transactional sex, homelessness and sexual health status. Based on women's narratives, intersectional stigma seems to be a main factor associated with the risk of sexual transmission of STIs and BBVs. It also appears to be a barrier for accessing sexual health services. The paper highlights how having a socio-structural stance to sexual health promotion may be crucial to develop effective public health strategies. Data from the focus groups were not included in this publication as stigma was barely discussed in the focus groups. The mentions of stigma that were raised in the focus groups were amongst the views that were raised in the interviews. These are then represented in the publication, and also included in other themes and sections of this chapter.

The findings in this paper were part of the needs assessment (Step I of IM), that aimed at exploring the factors associated with the sexual transmission of STIs and BBVs among WOST. The findings discussed in the paper also helped to further understand the needs of WOST in relation to STI and BBV prevention, what may work for a pharmacy-based sexual health service, and potential barriers for developing and implementing this service. This paper served as a publishable part of the discussion and critique of this PhD research, in relation to current public health approaches to sexual health among WOST. The discussion and critique were driven by the values of this PhD: feminism, equity and human rights. These are further developed throughout this thesis, and especially in Chapter 9.

4.2.4.3. Statement of authorship

The main author of the paper and this thesis (LMP) led this research, supervised by Dr Jenny Scott, Dr Charlotte Dack, Dr Hannah Family, Dr Sarah Chapman and Prof Julie Barnett. All members of the supervisory team supported LMP in the research planning, data collection, data analyses and write-up of this publication.

4.2.4.4. Permissions

Permissions to include the manuscript in this PhD thesis were obtained from Elsevier (see Appendix 28) on 29th of March 2018.

4.2.4.5. Data access statement

Data associated with this publication can be accessed upon request to the main author of the publication and this PhD thesis.

4.2.5. Gender-based violence

GBV was a key theme identified in the semi-structured interviews and focus groups with WOST. There were three subthemes: 1) the context and nature of GBV, 2) the impact of GBV, and 3) social and professional support for GBV.

4.2.5.1. The context and nature of GBV

Almost all women disclosed having experienced GBV at some point in their lives. Violence against women was mostly perpetrated by men and took place in different periods of women's lives. A few participants thought that GBV was the result of men's need to exert power, to somehow protect their masculinity and social power within a "macho culture". Some women were sexually abused when they were children by family members. Others had experienced intimate partner violence (IPV) when they were adults, some with several partners. Experiences of IPV included emotional, physical, financial and sexual violence by steady partners. Sexual violence in steady partnerships was difficult to identify by some women at the time of the abuse, but they could identify it retrospectively. Some women had also been physically and sexually assaulted by transactional sex clients or strangers. Random violence from strangers was commonly experienced by homeless women.

"He was quite abusive anyway and yeah, he had forced himself on me a few times, yeah (…) That [IPV] *was years ago now and to be fair at the time I didn't really… think anything of it. It's only as I got older that I realise that it was really wrong…" (Rosa, 40 years old; interview).*

It was common that men forced condomless sex on women in the context of all forms of GBV (i.e., IPV, sexual exploitation, violence from strangers or transactional sex clients, child sexual abuse). Suggesting condom use in the context of IPV could lead to an exacerbation of violence – emotional, physical, financial or sexual –, so women mentioned not suggesting condom use fearing an escalation of violence. Women were also powerless in using condoms when sexually abused, assaulted or exploited, as they had little or no control over their bodies. A few WOST explained having got pregnant from sexual violence.

"He [ex-partner] *was abusive in every way, anyway that he could possibly control me… You don't really get a choice then. You can't say "You need to use a condom" cause they are not going to. And if you're being held down and it's against your will there's nothing that you can do…" (Emmeline, 35 years old; interview).*

Some WOST had reported their partners to the police and had gone through legal procedures. In a few cases, these partners had gone to prison and had restraining orders. Despite taking legal actions, a few women were still harassed, threatened and eventually assaulted by these ex-partners. Some participants then lived in fear and felt powerless and helpless towards changing this situation.

One participant disclosed current IPV by her partner at the time of the interview. She explained how she tolerated occasional physical violence as it is not as severe as the violence that her previous partner inflicted on her[10].

"Hmm… no… well, yeah… well he has… [been abusive] *in six years there's been maybe three or four times that he's hit me, but it's been like a hit and then he's been really sorry about it. I know it's still wrong but I think I'm comparing it with the other one, and it's not too bad* (giggles)*" (Sylvia, 27 years old; interview).*

Women were often forced to engage in transactional sex or shoplift to financially support their partner's drug use, and their own. WOST were also initiated into transactional sex by drug dealers, who often coerced women into exchanging sex for money or drugs. In these situations, drug dealers often acted as *pimps*. WOST were especially vulnerable to exploitation and initiating transactional sex work when they were withdrawing, as already mentioned in this chapter. WOST then appeared to get into transactional sex in the context of GBV. Besides, working in transactional sex appeared to make women more vulnerable to GBV. Some clients were aggressive towards transactional sex workers and treated them in a disrespectful and violent manner. As a few participants explained, some clients acted as if they owned women's bodies. It was again a vicious cycle in which violence and transactional sex went hand-by-hand.

"My partner, ex-partner, used to take me to the places but, if he wasn't taking me to the places which I suppose that was a certain element of safety there, then I would be getting taxis, men coming around my flat… (…) I would give the money to him" (Emma, 27 years old; interview).

"You can't demand anything [when working in transactional sex], *you are going with guys* [clients] *that are gonna beat the shit out of you if you don't do as you're told essentially. You are at risk, you are in trouble all the time you are with a guy. Whether it's on a doorway, getting into their car… you are not safe. You've got no one watching your back, no one knows where you are, no one knows who these people are, no one sees you go… That's how girls get missing… and get murdered and end up in bushes, places, because they've just got into the car in the corner" (Joan, 27 years old; interview).*

4.2.5.2. The impact of GBV

A few participants expressed self-blame for having experienced GBV. One woman (Teresa, 34 years old) explained that she went through IPV because *"she was not strong enough".* She showed *"love and her feminine side"* instead of showing her *"strong side"*. Based on her experience, love

[10] This participant was offered referrals for support for GBV. The participant mentioned having discussed this with a social worker and said she was already receiving the support that she needed.

was women's weakest point. According to her, women needed to *"stop showing her feminine side and show their strong side"* so that men could not take advantage of them.

"I mean I showed my feminine side when I was in a different relationship and I showed my love too much. And because I showed my love too much he beat me, he… I hmm had bruises on my face, he raped me, he hmm he… he… took control of everything, my money, my life hmm he got me pregnant and then I lost the babies. I wasn't eating, I only ate when he said "You eat" hmm no condoms, nothing. Only because what he says goes cause I showed my weak side of myself he took control of that" (Teresa, 34 years old; interview).

For another participant *"IPV was good at the time"* because it was a way for her to get the partner's attention and *"affection"* (Harriet, 41 years old; interview). One woman attributed her inability to make "*the sensible choice"* of leaving her ex-partners to drug use, as there was a co-dependency with her partner to obtain and use drugs (Emma, 27 years old; interview). Another WOST, who did not disclose GBV, thought that women were however responsible for their own decisions in the context of GBV (e.g., having condomless sex with an abusive partner) (Lucy, 56 years old; interview).

"With my boyfriend of ten years sometimes when we had fallen out his punishment…he sort of made me have sex with him and make peace afterwards but yeah… (…) For me, cause what I want is just affection it was good that he was doing that. I think there wasn't much resistance (…) And he didn't want me to enjoy it and if I showed that I was enjoying it he'd stop and say "This is for my benefit and not yours, stupid bitch", hit me or something" (Harriet, 41 years old; interview).

Participants expressed their anger and distrust towards men, and mentioned being emotionally detached from all the violence that they had experienced in their lives. They said how they *"switched off"* their emotions when they shared their experiences. Some participants expressed not wanting to have sex, as they associated it with negative and traumatic events in their lives.

"And I'm gonna have to mention what happened to me cause… I have a boyfriend but I don't, we don't make love because of what happened to me as a child, you know, sexual abuse and all that. We are trying to build up our relationship but I'm not, I'm not up together with hmm… I don't make love with my partner" (Sarah, 53 years old; interview).

This was especially challenging for women who had sold sex. It was difficult for them to have sex with romantic partners after having engaged in transactional sex.

"Again it's a hard one for me because I don't… I used to be a prostitute. Sex is not appealing to me. Happy if I never have it again, and so it's hard for me because I just associated it all with that. It was work, not pleasure and so none of it is enjoyable to me. I'm quite happy if I never have it again. Never, not interested, so I'm probably not the best person to sit here" (Joan, 27 years old; interview).

Some WOST feared being in abusive relationships with future partners. Some had avoided starting new relationships, and a few others were controlling and aggressive towards new partners to protect themselves from violence. WOST mentioned creating emotional barriers to cope with trauma and as a way to prevent facing violent situations again. Using drugs was a way to numb their emotions and prevented them from dealing with trauma. A few women acknowledged that not expressing their emotions was not healthy, but most were reluctant to explore their emotions and get professional support for GBV. One participant highlighted that she had grown stronger due to her negative life experiences (Emmeline, 35 years old; interview).

"I can really go through the things [trauma] *that I've been through like a shopping list, like the rape, the kids being taken off me, all of it like a shopping list cause I detach the emotion, I just cut the emotion now, and I flick a switch straight away, I go into business mode and I know it doesn't help" (Joan, 27 years old; interview).*

4.2.5.3. Social and professional support for GBV

There were mixed feelings and experiences regarding the support that WOST had received and sought for GBV. Some women had gotten social and legal support to leave, report and cope with situations of GBV. This came from significant others (mainly family members), and health and social care professionals. Some women were aware that they needed support for GBV although most did not seek it out or declined this support. A few women were even pressured into continuing in situations of GBV. Other were reluctant to access support services as they feared having to cope with their emotions; they would rather *"forget about it"*. Also, a few women thought that they did not need support. One participant appeared to be experiencing nightmares and flashbacks, reliving experiences of childhood sexual abuse. She however believed that accessing social or professional support for it would exacerbate these symptoms, thus she refused to do it (Anne, 50 years old; interview).

"Not really, not really [did not get support]. *Hmm cause it… cause it happened when I was five years old hmm and like hmm the family that I come from I… You know, you don't really talk about stuff like that so I kept it secret for quite a few years and, you know, yeah… you know… It has come out if I'm doing hmm some counselling or some therapy but I haven't sort of, you know, I'm... I don't really wanna go there anymore cause it kind of controlled my life and for a very long time so I don't want go back to it cause it just… you know…" (Marion, 37 years old; interview).*

A few participants talked about experiencing neglect and abandonment from their parents when they were children. Especially those that had been sexually abused during childhood felt that they had not received the support that they needed then, nor in their adulthood. Even when they suspected their parents knew about the abuse, it did not seem they felt supported for it. Participants

identified how childhood sexual abuse was a taboo topic which made it quite challenging for them to disclose it to their families and get support, especially when the perpetrator was a family member.

"Yeah, my step dad did [sexually abused her], *yeah my step dad did and I got pregnant. And… my mum didn't want me to have the baby and aborted, and she didn't wanna know what colour it* [baby] *was so that she didn't let me have it. And she knew, deep inside, that it was his (…) No, she* [her mother] *didn't want to recognise it* [abuse]*. And she's a fucking bitch anyway" (Anne, 50 years old; interview).*

Some women had received professional support for GBV. Participants referred to group and individual counselling sessions. This support was through drug services or in prison. Most women who received support considered that it had had positive benefits. One WOST however mentioned it not having been that useful as she did not engage with the counselling sessions. Two participants mentioned having got support for GBV from their CPs. Especially women who had received support expressed their willingness to help other women, as that could also help them in coping with their own past experiences.

"You know, I've done all my, I've done all my courses in prison when I was raped. I've done all my work in prison, right. I know it's not the best place to do it but I'm doin' a lot. This is where I get my knowledge from. From all the courses that I've done, you know? (…) Yeah, I've done a women's group and all that" (Eleanor, 38 years old; interview).

4.2.6. Views and experiences with the health system and community pharmacy

This theme includes the views that WOST have on 1) (sexual) health services available and the health system, 2) services in community pharmacy, and 2) their interactions in community pharmacy, with pharmacy staff and other pharmacy clients. Only quotes from the interviews were included in this theme as there were very few discussions about health and social care services in the focus groups.

4.2.6.1. (Sexual) health services and the health system

Participants discussed their experiences and views on the (sexual) health services that they accessed. The health settings that women especially referred to were general practitioner's (GP) practices, drug services, community pharmacies and sexual health services. It was apparent through women's narratives that there were gaps between the care that WOST were receiving and their needs. Participants were especially aware of services offered in drug services and those that were most closely related to their drug use. Most services that women engaged with were exclusively for PWUD (e.g., OST) and other health services to address general health problems. The limited time for

consultations (e.g., in GP practices), waiting times (e.g., in sexual health clinics), and the need for appointments for most health services were barriers to accessing health care for most WOST.

"Instead of seeing your doctor you could go and see your pharmacist and he [CP] *should have more control. I think all pharmacists should have more control, you know, as much as the doctor and be able to prescribe the right medicines (…) Cause I mean if you want a doctor appointment nowadays you've gotta plan to be ill cause they "Sorry I don't have an appointment in two weeks" "Yeah, but I need it now" […] Yeah, then I've got a five minute appointment and believe me when I say five minutes they mean five minutes, cause I know the doctor has a timer running, "ting!", and off you go, it's a five minute appointment, that's what they keep saying to you cause when you get in there and suddenly you remember everything that's wrong with you, don't you* (laughs)*" (Jane, 51 years old; interview).*

Overall, accessing sexual health services was perceived to be challenging for most WOST. Participants expressed that most free services had age restrictions, thus most women could not access them. WOST explained that free condoms were often only available in NEP packs. These were exclusively male condoms and only available if they were injecting drugs (or pretending to). Female condoms were hard to obtain and use, due to their high cost, limited availability and other barriers already discussed.

"Cause they [condoms] *are expensive to buy, it's embarrassing, you can't really access them. Being a drug addict you can only get condoms in the needle package but other than that…" (Jane, 51 years old; interview).*

Most women had accessed sexual health services at some point of their lives. GPs were generally the first point of contact regarding general health and sexual health concerns. Screening for BBVs (especially for HCV) in drug services was mentioned by most participants. A couple of women accessed the service as there were financial incentives for screening. Some WOST referred to vaccinations also being offered in drug services for viral hepatitis. Most women had also screened for STIs at some point in their lives. A few participants mentioned not having discussed or having been offered sexual health services before, unless they asked or raised concerns themselves. Other women said that sexual health was often covered in health reviews in drug services, although the focus was almost exclusively on BBVs and injecting risks. The sexual transmission of STIs and BBVs was mostly overlooked. Women explained that staff at drug services changed often and that created challenges for them. This was because WOST felt more exposed to potential judgment and stigma if they had to explain their life story and health history to different professionals repeatedly. This was also seen as a barrier for building rapport and trust with health and social care professionals.

"I also had a blood test once and my something was high on my blood and the doctor looked at me and said "Well, you know, that is mostly associated to people who have long-term STIs", and

she hadn't even noticed that my previous appointment had been for a sexual health check and that it was all clear. And, very judgemental, very… she just assumed (…) didn't give me any advice on whether I should get tested or anything like that, she just, I just felt she was being really, really judgemental (…) and that was the end of the conversation, she didn't even look into more reasons why these levels might have been effected…" (Rosa, 40 years old; interview).

Attending sexual health clinics had been unpleasant for most participants, mainly due to anticipated and enacted stigma that often translated into negative interactions with health professionals (see page 97). Long waiting times and the limited opening hours of these clinics were also mentioned to be barriers to accessing sexual health services. Most participants were unaware of the location of sexual health clinics in their area. This was exemplified by their unawareness that, the drug service where most interviews took place was in the same building as one of these clinics. Having sexual health services in community pharmacy could be a way to avoid sexual health-related stigma and negative experiences in sexual health clinics, according to a few participants.

"And going to the clinic [sexual health clinic], *it was very embarrassing cause you see people and for no reason for them to go into that sort of section but, you know, but then they look at you and think "oh you dirty, dirty person", you know what I mean. And "you've got a chlamydia disease, stay away sort of thing" (Teresa, 34 years old; interview).*

One participant pointed out the lack of investment in sexual health in the UK, and how the health care system in the UK should focus more on disease prevention rather than "just" investing in treatment (Joan, 27 years old; interview). Overall, participants felt socially excluded by the system and called for new and improved services that addressed their needs. Being able to access free sexual (and reproductive) health services was one of the unmet needs that participants had identified.

"Cause it's all about solution, like the treatment afterwards. It needs to be more about the prevention first in my mind. It's the same with everything, we are all about solving the problem once it's there, never about fixing it before it happens […] It's all government workers and it's us against them. We need to know someone is on our side that we can go to and know that if it goes any further it will do the best to help us because they're on our side" (Joan, 27 years old; interview).

4.2.6.2. Services in community pharmacy

All participants taking part in the study were collecting their OST in community pharmacies. Most were on supervised daily treatment, and one mentioned having non-supervised treatment[11]. Another participant had her OST delivered at home due to mobility problems that prevented her from

[11] Clients on non-supervised treatment collect their OST in community pharmacy but they are not required to take their medication in the pharmacy premises. Clients on supervised treatment are required to take their medication in the pharmacy, under the supervision of pharmacy staff.

physically attending the pharmacy regularly (Dorothy, 48 years old; interview). Women were at different stages in their treatment. Some had just started whereas others had been on OST for years. Some women mentioned feeling embarrassed and stigmatised collecting their medication in community pharmacy, especially if there were other pharmacy clients around. As participants expressed, community pharmacy sometimes lacked the privacy needed for WOST to feel more comfortable and to engage in pharmacy services. As already presented in this chapter, intersectional stigma was an important barrier for WOST to access (sexual) health services (see page 97).

"People look at you and you don't want people, you don't want people see that you're getting it. But some chemist you don't have the option to go in… but some chemists would take you to a little room but some chemists you don't have that option and you just have to go to the window. So yeah it can be a bit difficult with someone you don't want knowing your private business and you, you know, you have to take it in front of them, you have no choice" (Sojourner, 27 years old; interview).

A few WOST mentioned that they were unaware of the services available in community pharmacy, apart from the OST and NEP that were the pharmacy-based services for PWUD. Other participants talked about chlamydia tests offered in community pharmacy and reproductive health services, such as emergency hormonal contraception. However, as already mentioned, there were age restrictions to access these services free of cost. Women needed to book appointments with other health professional to access these services. Having to do this made it more unlikely for WOST to engage in sexual health services.

"If there was more available to be tested I think more people would be [screening]*. I think it's under 23 or something that you can get the free tests kits, but over… it's a lot more difficult and you have to go an book in with the doctor and then you've gotta go to the doctor, go to that appointment and it's a bit more difficult, a more time consuming when you've got other things to do" (Emmeline, 35 years old; interview).*

4.2.6.3. Interactions in community pharmacy

Almost all participants had positive experiences with their current CPs. Positive experiences were defined as non-stigmatising interactions based on trust and positive rapport. Rapport and trust were built because of the frequent interaction (often daily) between WOST and CPs. WOST explained that some CPs were more approachable than others, and that created environments where women felt more or less comfortable to engage. According to a few participants, positive interactions also depended on clients' behaviour and willingness to engage with CPs and pharmacy services. As one participant mentioned, pharmacists were more educated at the present time, compared to years ago. According to her, this translated into a better understanding of WOST's circumstances and needs (Sojourner, 27 years old; interview). Likewise, this was linked to the levels of trust and rapport

between women and CPs. Most conversations with CPs were casual conversations that did not get to be intimate or include discussions about specific health concerns. In a few occasions, participants explained that CPs had been an important support to get out of abusive relationships and to reduce their drug use. CPs were sometimes perceived to be more trusting and approachable than other health professionals, such as GPs or nurses.

"I mean a pharmacist saved my life (...) You know, hmm…building a kind of, some kind of one-to-one relationship with, you know (...) So, you know, to build up a… my pharmacist is actively encouraging me with the, with the hmm you know, the detox come down of the diazepam. It's a very personal thing…" (Amelia, 52 years old; interview).

Some WOST also had negative experiences in community pharmacy, and one was not comfortable with her current CP (Joan, 27 years old; interview). These negative interactions had been with CPs, other pharmacy staff and other pharmacy clients. One participant mentioned that there was more stigma in small pharmacies (Sojourner, 27 years old; interview). These experiences were identified by participants as barriers to engage in pharmacy services. A few mentioned having changed pharmacists when they were not comfortable with them. Some WOST expressed not feeling understood by CPs and other health professionals. Women felt that health professionals such as GPs only knew "the theory" and lacked a comprehensive picture of drug use and WOST' circumstances. Some participants claimed the need to improve the training of CPs and other health professionals, not only to increase their knowledge on drug use, but also to be less judgmental and stigmatising.

"I think that some people [pharmacy staff] *are more like... hmm… friendly, you don't feel judged by them, but I think I've, certain chemists I've been to they just look at you all up like a drug user basically and they don't have time like…. Hmm… certain chemists you are not allowed in there, you've got to be there an hour and a half before it closes, after it opens you've got to wait for ages before everyone else gets served and it's just rude, to everyone cause they're getting their meth, so… it's just drug use… But yeah, I think that makes a difference" (Sylvia, 27 years old; interview).*

Some women mentioned feeling embarrassed and fearing stigma and discrimination when picking up their OST in community pharmacy (see page 97). Building positive rapport and trust was then a challenge for most of them. As in other services, this was particularly difficult when pharmacy staff changed, as the WOST felt further exposed to being stigmatised and discriminated. There were a couple of ideas from participants to avoid stigma and discrimination in community pharmacy. A few women mentioned the idea of having separate spaces in community pharmacy for OST clients and other pharmacy clients. Another suggestion was to have community pharmacies for PWUD only.

"Yeah and you go again next time and there's someone different, and that would put me off, if there's someone different every time… like maybe if there was a group of people, a group of workers and one does it like every every week so you know next week you're going to see [name CP] *and then*

the next week its's gonna be… but not that is someone and you're gonna go and 'Oh my gosh, it's someone different again and I'm gonna get judged again' or… you know? It's the relationship the biggest thing" (Florence, 37 years old; interview).

4.2.7. A sexual health service in community pharmacy

This theme included discussions around the development and implementation of a sexual health service in community pharmacy, alongside OST. The subthemes were 1) acceptability and positive aspects, 2) potential barriers, and 3) ideas for the service. Data from focus groups have been included in the analysis. However as for the previous theme, quotes from focus groups are not included in this section due to the scarce discussions around sexual health services in community pharmacy in the focus groups.

4.2.7.1. Acceptability and positive aspects

Most participants agreed that developing and implementing a sexual health service alongside the OST in community pharmacy would be a good idea. The service could provide support and address the sexual health needs of WOST. Community pharmacy was seen as an acceptable and convenient setting for sexual health services. According to some participants, community pharmacy was a better setting than others (GP practices, drug services) as there was no need for an appointment, anonymity and confidentiality were typically ensured, and CPs were often more approachable than other professionals (e.g., GPs).

"Sexual health, yeah… it's good to have the option there, it needs to be. I think people find it hard to ask for the Hep [Hepatitis]*… to do a chlamydia test or any of this and that, you know. Most of the signs are being there, but most people wouldn't know that they have it there, but I think if the support is there, because I've been a working girl* [transactional sex worker] *before and it's hard to… sometimes you feel that people judge you for doin' it… but yeah, it'll be good to have the option there instead of having to go to the doctors and…" (Marie, 29 years old; interview).*

4.2.7.2. Perceived barriers

WOST identified several barriers to having sexual health services in community pharmacy. Experiences of intersectional stigma were one of the key barriers discussed by women (see page 97). The taboos of sex and sexual health were associated with intersectional stigma. Discussing these topics was, for most women, a source of embarrassment and increased the fear of being stigmatised. Some participants thought that some WOST could feel judged and stigmatised if offered sexual health services. There were individual differences about this though, as a few participants expressed being open and willing to discuss sexual health. Fear of a positive diagnosis was another barrier identified by a few participants.

"It's just making people aware that it's there if they need it… (…) I mean there is screening for Chlamydia and all that, but all the other ones… [STIs and BBVs] *I think people get so scared of it* [HCV]*, they don't wanna do it* [screening]*, they don't wanna know the truth if they have it or not" (Marie, 29 years old; interview).*

Rapport and trust with health and other professionals was crucial for most WOST in order to engage in services, including sexual health services. According to the participants, having good rapport and trust with CPs and other professionals would promote women to discuss sensitive topics. Having these discussions in a private space in community pharmacy was key. Still, WOST thought that some women might still feel stigmatised and singled out if being offered sexual health services. A few ideas were suggested to overcome women feeling judged. First, WOST suggested that staff in drug services could introduce sexual health services available in community pharmacy. Other ideas were that CPs gave out questionnaires to complete rather than having a one-to-one conversation to initiate the service, and/or having advertising materials (e.g., leaflets or posters) to help WOST ask about the service.

"Yeah, yeah, it could be, it could be that 'What are you trying to say?' But… I mean, I suppose it depends on who you are, because I would think 'Oh, you actually care and you're worried', but then… I suppose some people would feel judged. But anyway you're not gonna win either way because it's gonna be hard, but all you could do I suppose is that if that person feels judged it's just that they, I don't know… you are doing it as a survey or something so that they don't feel judged, make it like a survey or… instead of coming up straight with it" (Florence, 37 years old; interview).

Having had traumatic experiences (e.g., GBV), was also perceived to be a barrier for engaging in sexual health and other health services (see page 106). For instance, one participant talked about her struggles accessing sexual and reproductive services. She explained how doing so could trigger her feelings in relation to previous traumatic experiences, and that was something that they avoided:

"Yeah… I did have a breast… done [mammogram]*. It was uncomfortable but I managed myself to do it so that (…) it was good but I resisted that for all those years (…). It's really hard to think about sexual… things. But I should have smears and things like that but I never do" (Sarah, 53 years old; interview).*

Some women would feel especially reluctant to engage in services if the professional delivering them was a male. Related to this, it was important for the participants to always be given the freedom to decide whether to engage or not in the service.

"Some like talk to women, some might… this is where you might [unintelligible; have a challenge] *a little bit cause some have got men, some have got women" (Eleanor, 38 years old; interview).*

Allowing enough time to deliver these services was also important for some WOST. These participants explained that some CPs (and other professionals) appeared to be very busy at times. This made them reluctant to engage in services and even share concerns about their health and treatment. Having to wait long to access services was another time-related constraint mentioned for most WOST.

"Some people you think like they look busy and 'Oh, I don't wanna ask them', they look miserable or you get some ego you know. Like at least my chemist you know that you can, you can approach him and he's not gonna judge you, he's always got time for you… you've got times that he's on a rush and you think 'Oh, I don't wanna… forget it, forget it'" (Florence, 37 years old; interview).

As women explained, their own engagement in services also depended on their drug use and their progress with OST. Participants thought that women who were using drugs heavily would be unlikely to engage in services because of the lack of prioritisation of their (sexual) health, and the effort that implied attending services (e.g., waiting times). If WOST were feeling unwell, for instance experiencing withdrawal symptoms, they would also be less likely to access services.

"But when you're in addiction… you're barely able to function, you're desperate to get better and then, for example, benefits… you have to like jump through all these queues and spend two hours on the phone to get anywhere and it's just, it's just not realistic" (Emma, 27 years old; interview).

A few participants also highlighted that women using drugs who were not accessing services regularly could not benefit from the sexual health services in community pharmacy. There were suggestions to broaden the scope of the service so that it could reach and meet the needs of other women using drugs.

4.2.7.3. Ideas for the service

According to most participants, sexual health services in community pharmacy should be free of cost and delivered in private. A few WOST suggested offering financial incentives or vouchers to promote women engaging in the service. According to one participant, appointments could be arranged to deliver the service (Amelia, 52 years old; interview), although most women suggested that services should be delivered opportunistically in order for them to be successful in engaging women. WOST also thought that CPS and other pharmacy staff should be appropriately trained to deliver the service. Women should be allowed to decide whether they would like to engage in the service, so as not to feel "singled out".

"Letting people know that the information is there and if they can go to them [CPs] *if they feel they* [WOST] *need to without sort of pushing too much…* (laughs) *So that they know that they can get information available there (…) so not pushing it too much so that you think that you've been singled out" (Sylvia, 27 years old; interview).*

Most WOST agreed that the service had to include the provision of information to increase women's knowledge on sexual health. A few participants thought that this was especially important for HCV. Suggestions of the information that should be given were in relation to the routes of transmission and symptoms, preventive methods, how and where to screen for STIs and BBVs, and treatment (what, where, how). WOST suggested that this information could be provided in leaflets and posters in community pharmacy. However, there were women who thought that they would not usually look at leaflets. These were available in drug services but mostly disregarded. Apart from the written information, another idea for the service was to have a regular health review or assessment in a private consultation with their CPs. Another idea was that sexual health should just be added onto the general health review that women already have in drug services and community pharmacy. Also, one participant suggested having a free and anonymous phone line available for sexual health concerns and advice (Eleanor, 38 years old; interview). Increasing knowledge was seen for WOST as a way to also increase risk awareness and access to sexual health services (e.g., screening).

"Yeah, I think there should be a lot more information about what, what you could catch. Cause people know about chlamydia, it's the one that people always talk about. And it could be symptomless so you don't know… but not really many others are talked about" (Emmeline, 35 years old; interview).

A few WOST thought that the service could also include reproductive health services, such as contraception, emergency hormonal contraception and pregnancy tests. For a few women, there should be a focus on preventing unwanted/unplanned pregnancies and terminations.

"Pregnancy test, rather than going to the doctor… cause it's really important if you can't get to the doctor for two weeks and you're on drugs and you are pregnant, you need to get a test there and then. It's really important. And if you've got no money, you know, I don't think it should be like "Oh you haven't got any money so you can't have a pregnancy test". I don't think that's fair" (Emma, 27 years old; interview).

WOST thought that the service should also include the provision of free condoms, screening services and treatment. Increasing women's confidence negotiating condom use and having trusting relationships was another key aspect suggested for the service. A few participants thought that the service could increase women's risk awareness to promote screening and treatment. Two participants mentioned that this awareness raising should focus on preventing future infertility from untreated STIs, especially if women would like to get pregnant in the future.

"But yeah I suppose it makes sense in the chemist if you could get free condoms if you needed them that would be of a lot of help I suppose (…) Put a little bit more awareness there for people. And yeah… it would make it [accessing sexual health services] *less embarrassing to access things like that so yeah, it's a good idea" (Sojourner, 27 years old; interview).*

Participants thought that sexual health services in community pharmacy should be advertised. There were different suggestions about how to advertise the service but, overall, the idea of advertising was to engage women in the service. A few WOST mentioned that the service could be first advertised in drug services so that women were aware of the services that they could access in community pharmacy.

"Yeah, I mean cause I didn't know they had service unless they gave me that information so… so really, you need to know everything about this. And if you don't you will have to ring around, don't you? I mean I wouldn't know that [pharmacy chain] *do a stop smoking unless they told you about it, and they certainly let you know about that ain't they?" (Dorothy, 48 years old; interview).*

The use of visual materials, such as posters and leaflets in community pharmacy and other services such as drug services, was also discussed. A few participants mentioned the example of chlamydia screening being advertised in community pharmacy. Word-of-mouth was also mentioned as a way of spreading the word about the sexual health service within communities of PWUD. Advertising in other settings (e.g., homeless shelters) were other ideas to engage groups of women using drugs that may not be accessing drug services.

"And the thing is that even for not all the people that don't use, or the needle exchange or have a script like, the people that do have to talk to the people that don't have about… they offer that, you know the word of mouth would make people realise that they offer that you know, and they would talk to other people about that" (Lily, 36 years old; interview).

4.3. Summary

Seven themes were identified through the narratives of WOST in semi-structured interviews and focus groups. Data presented highlighted factors that may be associated with WOST's higher risk for STIs and BBVs. These factors were at different social ecological levels, although most were socio-structural factors (e.g., experiencing GBV). Women also discussed their views on the health and social care services that they access, and the opportunities for having sexual health services in community pharmacy.

Experiences of intersectional stigma and violence were key themes, as well as women's feelings of worthlessness, powerlessness and helplessness. WOST's narratives were dominated by experiences of trauma, addiction and a lack of power and control over their own lives and bodies.

Using drugs had often become women's main priority when they were heavily using and, as participants discussed, this took over any other area of their life (including their sexual health). Having enough knowledge and risk awareness were important elements to engaging in protective behaviours but these appeared to be insufficient for women to prevent STIs and BBVs in sexual interactions (i.e., by using condoms). Accessing health services was challenging as it exposed women to being stigmatised and discriminated. There seemed to be important gaps between the services available and WOST' sexual health needs. Also, between the understandings of professionals working with WOST and the realities of this group of women. Overall, the acceptability for having sexual health services available in community pharmacy was good. However, there were important barriers that need to be considered for service design and that may challenge the implementation of these services.

It is important to note that women discussed their experiences of sex and sexual health throughout their lives, and especially relating these experiences to their drug use. Although women often spoke about their experiences retrospectively, there was not a particular focus on how being on OST or accessing drug services could have improved their situation or sexual health. In fact, most women taking part in this research were still living in complex situations as the ones described in this chapter and PhD thesis. This could suggest that the issues raised by WOST may be relevant to women using drugs in general. Besides, some of the factors that may increase WOST's risk for STIs and BBVs may be common to all women (e.g., GBV).

These findings are discussed further in Chapters 6 to 9.

CHAPTER 5. The Views of Community Pharmacists

This chapter presents the findings from the semi-structured interviews and the focus group with CPs. All data collected were linked to all the aim and objectives of this PhD study (see Chapter 1, page 10).

5.1. Participant Characteristics

This section contains data on the demographics, job characteristics and characteristics of the community pharmacies where participants worked at the time of the research. Participants taking part in the focus group had also been interviewed. Since these were two different stages of this research, data analyses for participant characteristics were performed separately. Participant characteristics are presented separately, for CPs that participated in semi-structured interviews and those that participated in the focus group.

5.1.1. Semi-structured interviews

Fourteen CPs took part in individual semi-structured interviews. There were seven men (50%) and seven women (50%). The age range was between 25 and 57 (*M*=36, *SD*=9.46). Most were British (n=5, 35.7%) and white European (n=4, 28.6%), and for half English was their primary language. All participants had completed at least a first university degree (n=7, 50%) or a postgraduate qualification (n=6, 42.86%). All participants were working full-time and were responsible for delivering OST. Most had a job role that involved some pharmacy management responsibilities (n=11, 75.57%). See Table 8 for further details.

Table 8

Demographics and Job Characteristics of Community Pharmacists Taking Part in Semi-Structured Interviews

Sample Characteristics (N=14)	**n (%)**
Age	*M*=36 (*SD*=9.46)
Sex	
Female	7 (50)
Male	7 (50)
Ethnicity	
English/Welsh/Scottish/Northern Irish/British	5 (35.7)
White European	4 (28.6)

White non-European	1 (7.1)
Indian	1 (7.1)
Chinese	2 (14.3)
Other	1 (7.1)
Primary language	
English	7 (50)
Non-English	7 (50)
Education	
First degree	7 (50)
Postgraduate certificate of education (PGCE)	1 (7.1)
Other postgraduate qualification (including professional)	5 (35.7)
Doctorate	1 (7.1)
Employment status	
Work ≥ 16 hours /week	9 (64.3)
Work < 16 hours/week	1 (7.1)
Self-employed	4 (28.6)
Job title	
Superintendent pharmacist	2 (14.3)
Pharmacy manager	6 (42.9)
Responsible pharmacist	3 (21.4)
Pharmacist	1 (7.1)
Independent prescribing pharmacist	2 (14.3)
Time being a pharmacist (in months)	*M*=145.64 (*SD*=124.69) (12.14 years)
Responsible for OST	14 (100)
Time being involved in delivering opioid substitution treatment (in months) (n=13)	*M*=71.69 (*SD*=69.68) (5.97 years)

The type and location of community pharmacy participants worked at were mixed. Six worked in independent pharmacies (42.9%), four in national chains (28.6%), three in medium chains (21.4%), and one in a small chain (7.1%). The community pharmacies where participants worked were co-located with a GP surgery (n=4, 28.6%), located in a city centre (n=4, 28.6%), town centre (n=3, 21.4%), village centre (n=2, 14.3%), and a supermarket (n=1, 7.8%). All the pharmacies where

participants worked offered advanced and locally commissioned services, but not all had private services (i.e., non-NHS services) available. See Table 9 for more details.

Table 9

Characteristics of Community Pharmacies Where Participants Taking Part in Semi-Structured Interviews Worked at the Time of the Research

Pharmacy characteristics (N=14)	**n (%)**
Type of pharmacy	
National chain	4 (28.6)
Medium chain	3 (21.4)
Small chain	1 (7.1)
Independent pharmacy	6 (42.9)
Pharmacy location	
Co-located with GP surgery	4 (28.6)
Supermarket	1 (7.1)
Village centre	2 (14.3)
Town centre	3 (21.4)
City centre	4 (28.6)
Prescription volume/day (n=11)	*M*=379 (*SD*=217.56)
Advanced services	
Medication use reviews	14 (100)
New medicine service	13 (92.9)
Stoma appliance customisation	1 (7.1)
Appliance use reviews	1 (7.1)
Flu vaccination	10 (71.4)
Locally commissioned services	
Alcohol screening and brief intervention	14 (100)
Anticoagulant monitoring service	14 (100)
Care home support and advice	1 (7.1)
Chlamydia screening and treatment	9 (64.3)
Vaccination services	5 (35.7)
Domiciliary support	14 (100)
Emergency hormonal contraception	13 (92.9)
Emergency supply	14 (100)

Minor ailments service	4 (28.6)
Needle and syringe programmes	4 (28.6)
NHS health check	2 (14.3)
Out of hours	2 (14.3)
Sharps disposal service	1 (7.1)
Stop smoking	10 (71.4)
Supervised administration	13 (92.9)
Weight management service	2 (14.3)
Private services (non-NHS)	
Vaccinations	3 (21.4)
Cholesterol checks	1 (7.1)
Diabetes screening	2 (14.3)
Vitality health check	1 (7.1)
Fast doctor online	1 (7.1)
Delivery services	1 (7.1)
Blood pressure	2 (14.3)
Travel clinic	1 (7.1)

5.1.2. Focus group

Three CPs took part in a focus group, two women (66.7%) and one man (33.3%). The age of the participants was between 27 and 51 (*M*=35.67, *SD*=13.32). Participants were British (n=2, 66.7%) and Indian (n=1, 33.3%). All had English as their primary language. All participants had completed a first university degree, were working full-time, and were responsible for delivering OST. Participants' job roles were superintendent pharmacist (n=1, 33.3%), pharmacy manager (n=1, 33.3%), and medicines inspector (n=1, 33.3%). This last participant had left community pharmacy and started her new role as a medicines' inspector a few weeks before the focus group. See Table 10 for more information.

Table 10

Demographics and Job Characteristics of Community Pharmacists Taking Part in the Focus Group

Sample Characteristics (N=3)	n (%)
Age	*M*=35.67 (*SD*=13.32)
Sex	
Female	2 (66.7)
Male	1 (33.3)
Ethnicity	
English/Welsh/Scottish/Northern Irish/British	2 (66.7)
Indian	1 (33.3)
Primary language	
English	3 (100)
Education	
First degree	3 (100)
Employment status	
Work ≥ 16 hours /week	3 (100)
Job title	
Superintendent pharmacist	1 (33.3)
Pharmacy manager	1 (33.3)
Medicines inspector	1 (33.3)
Time being a pharmacist (in months)	*M*=144.67 (*SD*=166.21) (12.05 years)
Responsible for OST	3 (100)
Time being involved in delivering opioid substitution treatment (in months) (n=2)	*M*=24 (*SD*=16.97) (2 years)

CPs participating in the focus group worked in national chains (n=1, 33.3%), small chains (n=1, 33.3%), and independent community pharmacies (n=1, 33.3%). Community pharmacies were located in a health and beauty store (n=1, 33.3%), the centre of a village (n=1, 33.3%), and the centre of a city (n=1, 33.3%). They all delivered advanced and locally commissioned services. None of the participants offered private services in their community pharmacy. See Table 11 for further details.

Table 11

Characteristics of Community Pharmacies Where Participants Taking Part in the Focus Group Worked at the Time of the Research

Pharmacy characteristics (N=3)	n (%)
Type of pharmacy	
National chain	1 (33.3)
Small chain	1 (33.3)
Independent pharmacy	1 (33.3)
Pharmacy location	
Health and beauty store	1 (33.3)
Village centre	1 (33.3)
City centre	1 (33.3)
Prescription volume/day (n=11)	*M*=373 (*SD*=141.89)
Advanced services	
Medication use reviews	2 (66.7)
New medicine service	3 (100)
Stoma appliance customisation	3 (100)
Appliance use reviews	3 (100)
Flu vaccination	3 (100)
Locally commissioned services	
Alcohol screening and brief intervention	3 (100)
Anticoagulant monitoring service	3 (100)
Care home support and advice	3 (100)
Chlamydia screening and treatment	3 (100)
Vaccination services	1 (33.3)
Domiciliary support	3 (100)
Emergency hormonal contraception	3 (100)
Emergency supply	3 (100)
Minor ailments service	3 (100)
Needle and syringe programmes	3 (100)
NHS health check	1 (33.3)
Out of hours	1 (33.3)
Sharps disposal service	1 (33.3)

Stop smoking	3 (100)
Supervised administration	2 (66.7)
Weight management service	3 (100)
Private services (non-NHS)	
None	3 (100)

5.2. Main Findings

The aims of the interviews with CPs were to explore 1) the role of CPs promoting sexual health among WOST, 2) their experiences working with WOST, 3) their understanding of the factors associated with sexual health risks among WOST, and 4) their views on a sexual health service for WOST in community pharmacy. Following the semi-structured interviews a focus group was conducted to obtain feedback from participants on the findings from the interviews. This was an opportunity to clarify findings and gain new insights on the same issues using a different research method. Data were analysed using FA (semi-structured interviews) and QCA (focus groups) (see page 28). An analytic framework was developed and included six themes and related subthemes (see Table 12).

Table 12

Analytic framework: community pharmacists

	Themes	Subthemes
1	Stigma and discrimination	Pharmacy staff
		Other pharmacy clients
2	Humanity	Trust and rapport
		Empathy and compassion
3	Communication	Taboo of sex and sensitive topics
		Managing conflict
4	Perceived sexual health risk factors among WOST	Individual-level factors
		Socio-structural-level factors
5	The role of community pharmacists	Health promotion

		Sexual (and reproductive) health
		Skills and training
6	A sexual health service for WOST	Acceptability
		Components of the service
		Potential barriers

5.2.1. Stigma and discrimination

Discussions around stigma and discrimination towards WOST were prevalent in the narratives of CPs. Stigmatising attitudes and discriminatory behaviours involved CPs themselves and other pharmacy clients.

5.2.1.1. Pharmacy staff

Discussions around stigma and discrimination towards WOST were present in most conversations with CPs. WOST were seen as a challenging group of clients, and data suggested that some CPs behaved in a discriminatory way towards them. Some even refused to provide OST in their community pharmacies. Power imbalances between pharmacy staff and WOST were mentioned, and participants referred to WOST and other PWUD as having a lower social status compared to people who did not use drugs. According to one participant, these power inequities *"were generated by clients themselves" (Peter, 25 years old; interview)*. A few participants mentioned that CPs and other pharmacy staff should undertake training in stigma and discrimination, to deliver services and work with clients in community pharmacy.

"People should not be in the job if they don't treat people, everyone as humans basically, so manage to sort of don't know, teach non-judgemental at pharmacy school" (Matthew, 51 years old; focus group).

Based on the narratives of CPs, pharmacy clients (and people in general) seemed to be dichotomised into *"normal"* and *"not normal"*. Participants referred to WOST as *"not normal"* as they did not conform to a socially acceptable lifestyle, compared to other people in the community. At the same time, CPs seemed to place themselves within the *"normal people"* group. This appeared to create a divide between CPs and WOST that may hinder good communication and positive interactions. Clients were sometimes blamed for their drug use and lack of progress, and there was a general lack of empathy and compassion towards WOST. Nonetheless, CPs verbalised their willingness to support WOST in their progression. The type and level of commitment to providing support was different for each CPs.

"Hmm… I don't know if we can change something… anyways I think it's depending on the person you are talking to… if they want to give up at some point and they want to be normal (laughs) *like the rest of us but… I don't know… as a pharmacist if I can change something… as a person I don't think… maybe something like a programme or I don't know, something more…" (Susan, 35 years old; interview).*

Most stigmatising attitudes towards WOST appeared to be associated with women's drug use. A few participants believed that WOST and other PWUD initiated disease outbreaks within the general population and they were considered to be a *"public hazard"*. The intersections of drug use-related stigma with transactional sex-related stigma and HIV-related stigma were also identified.

"At some point you are… exposed to a risk as well, dealing with them [OST clients], *dealing with an HIV positive… means that you are exposed to a problem and you, we have to be very careful" (Fred, 36 years old; interview).*

The stigmatising attitudes of a few CPs also highlighted the lack of understanding and empathy towards WOST and their circumstances. For instance, one participant stated that *"OST clients have the aggressive behaviour in themselves" (Peter, 25 years old; interview)*. This may be a rather simplistic explanation for clients' anger and hostility but also highlights the misconceptions held about the nature and context of drug use. It also implies that CPs may be expecting WOST and other OST clients to behave aggressively. Another participant stated that she only wanted to serve *"the happy OST clients" (Susan, 35 years old; interview)*, referring to those that were trying to stop using drugs as opposed to those that were not planning (or were not ready) to quit. Cultural differences could partly explain these attitudes and behaviours among a few participants. This was clear for one particular CPs that was not familiar with OST provision before moving to the UK and explained how she could not understand at first *"why the government would give free drugs to those people" (Susan, 35 years old; interview)*.

Some participants explicitly expressed not holding stigmatising attitudes towards WOST, while a few held stigmatising views and used stigmatising and dehumanising terms such as *"blue scripts"*, *"junkies"* or *"drunks"*. Others seemed to be aware of their own attitudes and tried to challenge them (e.g., trying to avoid using the term "not normal" to refer to WOST). According to a number of CPs, other pharmacy staff (e.g., counter assistants) might hold more stigmatising views towards WOST due to the lack of training. Some CPs also mentioned that WOST may fear being stigmatised and discriminated in community pharmacy because of their drug use. Also, they may feel *"singled out"* if being offered sexual health services as drug use is stereotypically associated with sexual promiscuity and disease (e.g., HIV/AIDS). WOST may anticipate and fear being stigmatised, especially if there is not enough trust and rapport with pharmacy staff.

"I've got a good rapport with them I'm not uncomfortable asking those questions and they would. But on the other hand I can understand somebody coming in as a locum or maybe a male or somebody who they [WOST] *think is going to be judgemental then yes it would* [be uncomfortable to discuss sexual health]" *(Martha, 57 years old; interview).*

5.2.1.2. Other pharmacy clients

Community pharmacies offer services for the general public and specific populations such as WOST. On rare occasions, non-OST pharmacy clients were stigmatising and openly discriminatory towards WOST. Non-OST pharmacy clients sometimes commented on WOST's drug use and OST. These comments were mostly made to pharmacy staff but also directly to WOST. The ways CPs dealt with these situations varied. In some circumstances, CPs had intervened and supported WOST. Other CPs were reluctant to intervene for fear of losing pharmacy clients and risk affecting *"the image of the pharmacy".* This was another example of stigmatising attitudes held by CPs themselves. Some CPs commented on how some pharmacies with a high number of OST clients had significantly lost other types of clientele, supposedly due to OST provision. One participant called for the need to educate non-OST pharmacy clients about the experiences of WOST to promote empathy and compassion, and as a way to decrease stigma and discrimination.

"Hmm it's not a strict relation between the, like how their physical appearance is to the drug misuse but they do happen sometimes that people can see, they can feel that you might be that kind of patient and they have that in mind. And, for them, the image of the pharmacy might be affected, 'Oh, it's always full of this kind of people in this pharmacy so I will go to another pharmacy'" (David, 25 years old; interview).

5.2.2. Humanity

This theme referred to providing a humane treatment to WOST and attitudes that somehow attempted to lessen the impact of stigma and discrimination towards this group of women. This humane treatment implied thinking of WOST as human beings (and like any other women) and providing a treatment that was not based on women's drug use but rather one that any woman might need. There were two subthemes identified: 1) trust and rapport, and 2) empathy and compassion.

5.2.2.1. Trust and rapport

There was a contradiction on how CPs viewed their interactions with WOST. Participants defined these as generally positive, while they were also stigmatising (see previous theme) and all reported several negative encounters. Participants identified trust and rapport as key aspects for having positive interactions with WOST. Building trust and rapport was facilitated by the frequent contact CPs had with WOST and the usually conflict-free interactions. It was bi-directional as

participants mentioned how trust and rapport were dependent on both the attitudes and behaviour of clients, and their own: *"If the patient is friendly they will be a little bit more personal relationship, I mean as a rapport yeah…" (Peter, 25 years old; interview).*

CPs' stigmatising attitudes and discriminatory behaviours towards WOST were important barriers for developing trust and positive rapport with clients. For instance, part of the role of delivering OST involved ensuring that clients had swallowed the medication. There were different approaches to doing this that had an influence in the trust and rapport with clients. A few CPs mentioned that they asked clients to open their mouths after administering the OST, and how this had led to arguments with some clients that refused to do so. Other CPs would use other strategies to make sure that clients had indeed taken their medication, such as simply having a conversation with their clients. In this second example, CPs paid attention to protecting trust and rapport with their clients. Similarly, a few CPs expressed threatening clients "if they do not behave well", which could again be damaging trust and rapport. On the other hand, some CPs also explained how they would express their concern to clients if clients were feeling unwell, or would remind clients to pick up their medication so that their script was not cancelled[12]. CPs explained that these actions increased trust and rapport with clients that could help engaging clients into services and continuing attending that particular pharmacy.

"When you're getting trust and again it's about being open with them hmm back treating them like a human being rather than… a piece of filth hmm and when you gain that trust, when you gain that relationship with them, that's when they start opening up" (William, 42 years old; interview).

Trust and rapport were crucial to engage WOST in services and have conversations beyond their OST and their drug use. This also applied to delivering a sexual health service, for which trust and rapport were identified as important factors that could avoid WOST feeling judged and stigmatised. CPs felt rapport was also required for them to feel comfortable having these discussions and delivering services to WOST. A few participants expressed how they generally distrusted WOST and deemed them as "lost causes". This seemed to be related to the stigma associated with WOST and other PWUD, as presented in the previous theme. Most CPs found it rewarding to work with this group of clients and oversee their progress in decreasing OST. At the same time, some clients never progressed, or their progress was erratic. This was frustrating for most CPs, especially for those that seemed to be more involved in accompanying and motivating clients with their treatment progression. These participants linked their commitment with more humane interactions and trusting relationships with their clients, although they also called for the need of setting professional boundaries and "not

[12] Prescriptions are often cancelled after not collecting the OST three consecutive days.

getting too involved". Trust and rapport were more difficult to build with unstable clients, as was engaging them in services. One participant also said that clients might be reluctant to have discussions around sexual health as it would be shameful and might damage the rapport with the CPs (Peter, 25 years old; interview).

"It all depends on the rapport you have got with them if you know them relatively well and you get on with them well and there are no negative issues between you, starting the conversation might okay, we don't like talking about it anyway. But starting the conversation would be a hell of a lot easier than if you had that sort of, that sort of barrier and you didn't know them well enough, or well at all to sort of do it" (Olivia, 27 years old; focus group).

Trust and rapport were sometimes damaged when there were incidents with clients in the pharmacy. Although these were more commonly involving men on OST, there were also incidents involving WOST. Whilst CPs explained these incidents were not common, they were mentioned by all CPs as a negative and challenging side of delivering services to WOST. These incidents included arguments between clients (on OST and other pharmacy clients) and between clients and pharmacy staff. Shoplifting and trying to divert OST to other PWUD were other types of incidents. When these incidents occurred, it posed a challenge to the relationship between CPs and WOST. In cases where clients were banned from the pharmacy, the trust and rapport were broken. According to the participants, this had a negative impact on clients' future engagement in services and CPs's lack of willingness to deliver services. Anger and blame towards WOST were common in the narratives of CPs when discussing these incidents, and a few participants even mentioned their reluctance to work with WOST as a result of these negative events. Some of their narratives also reflected stigmatising attitudes:

"They are people, we have to treat them as people so… they look okay, until they are stealing something for example (laughs)*. Then you start asking 'okay… so I shouldn't trust in this one…'" (Susan, 35 years old; interview).*

According to the participants, locum pharmacists[13] were less trusted as it was more difficult for them to build rapport with WOST due to the less frequent contact. Based on the CPs's narratives, WOST did not like change and preferred being served by their regular pharmacist rather than someone "new" or not "as trusted" (e.g., locum pharmacist). Clients were also more likely to disregard the pharmacy rules (e.g., divert OST or shoplifting) when regular pharmacists were not present.

[13] CPs that alternate shifts in different community pharmacies.

"But in terms of arguments really, when we get the arguments really we do have some arguments sometimes with not regular pharmacists or the… for example I have my replacement who is not a regular then they might get sometimes some clashes because of the waiting time or maybe a bit… about different things and… so that's why the, the kind of… that rapport is very, that rapport is very important between the client and the service provider and cause it would´ve minimised this kind of, this sort of incidents. So… often people kind of shoplift for example when I am not there or my… they might get involved in kind of arguments with the locum pharmacist for example…" (James, 32 years old; interview).

Time constraints were important barriers to building trust and rapport. Time was limited due to the workload of most CPs. At the same time, CPs expressed how clients were mostly "in and out" of the pharmacy and they did not seem interested or able to spend longer time in the pharmacy. Thus, the interactions between CPs and WOST were short and in a public space which limited the opportunity to build rapport and trust. Despite the limited time, some CPs still had informal chats with clients when they were picking up their medication. Doing this was seen by participants as a way to then involve clients in other services and ease having conversations around sensitive topics such as sexual health.

"I think, you meet clients and yeah you see them every day but they are only in your pharmacy for a minute two minutes you know, you don't, you sort of say 'hi, how's your day' and they are off out again. Sometimes they stay and chat but you don't really get to know them" (Julia, 29 years old; interview).

According to a few CPs, trust and rapport were more difficult to develop in big pharmacies and community pharmacies in the city centre. These were considered to provide a more impersonal and less humane service to clients. Time was also more limited in these pharmacies as they usually had a higher volume of clients. Likewise, negative incidents involving WOST were more common in big pharmacy chains for the same reasons. Pharmacy staff changed constantly, and in some community pharmacies, there were security staff that both increased clients' experiences of stigma and hindered trust and rapport with pharmacy staff.

"I think a lot of them especially don't seem to like the big stores where there is change overs of staff and sort of security guards staring at them that sort of thing (…) Yeah so I would say a lot of them prefer the sort of environment here [independent pharmacy] *and the fact that almost we tend to go on first name terms with them whatever name they like to be known by and it's quite relaxed which leads to relaxed but hopefully sort of the…* (laughs) *relaxed but professional that's what I'm trying to say not sort of inviting them home for cups of tea or anything like that but yeah I think they feel relaxed and yeah so" (Paul, 50 years old; interview).*

5.2.2.2. Empathy and compassion

A few CPs were particularly empathetic and compassionate towards WOST. They seemed to be aware of the personal problems that their clients might be experiencing or have experienced in the past. These CPs could also see how such experiences could be related to their drug use and vulnerability to sexual health risks. These participants mentioned gender inequities, GBV, poverty and multiple diagnoses as factors for using drugs and/or having a poorer sexual health. Also, they understood WOST's involvement in transactional sex as a means for surviving and obtaining drugs. One participant also explained how clients' drugs might be used to numb emotional pain, for example from experiencing violent situations (Martha, 57 years old; interview). Another participant claimed that women needed to be more empowered in their relationships with men. Empowering WOST was for him a key factor to boost their self-worth and self-love. This participant had identified and offered support to clients in situations of GBV. He however explained how it was a difficult area as often perpetrators attended the same pharmacy and that women might be afraid of disclosing violence to the CPs fearing retaliation. In these situations, communication with other professionals was crucial (William, 42 years old; interview). A few CPs were also aware of the need to apply safeguarding protocols as WOST are a particularly vulnerable and marginalised group.

"Then you find that they are on antidepressants and they have problems with depression and I do see that with a lot of our clients and especially the seasonal because again they've never sort of been able to get their life together they do have this sort of let's say not being shown boundaries when they were younger not know how to conform to society they are isolated they've never been able to hold down stable relationships and therefore they are unhappy. So it can come from one thing and it can also come with the link from the emotional pain that you've been trying to numb with the drugs so" (Martha, 57 years old; interview).

A few CPs showed empathy and compassion towards WOST and that is worth mentioning. These participants expressed how some WOST lived *"very normal lives" (Barbara, 38 years old; interview)* and are *"like any other woman" (William, 42 years old; interview)*. This perception of normality versus non-normality may be stigmatising *per se*, as already discussed. However, in this context it signified a way of advocating an equal treatment of different groups of clients (and social groups). Overall, delivering services in a non-judgmental and non-stigmatising way was seen as a way for engaging clients in services and their progress. This was however difficult because CPs did not have as much information about the clients compared to other professionals working with them (e.g., social workers). Empathy and open communication were also key to managing negative incidents in the pharmacy.

"Respect, self-respect umm a lot of women a lot of addicts don't have any respect for themselves. Umm… and about trying to build them up and making them realise that human and they, they shouldn't be so hard on themselves umm… and allowing them that respect. So you give them their respect when they walk in the door, it's theirs to lose but you give it to them to start off with that is the base line" (William, 42 years old; interview).

5.2.3. Communication

Communication was a recurrent theme in the narratives of CPs. There were two subthemes identified: 1) taboo of sex and sensitive topics, and 2) managing conflict.

5.2.3.1. Taboo of sex and sensitive topics

Sex and sexual health were treated as taboo topics and were not generally discussed in community pharmacy unless in the context of delivering sexual health services (e.g., emergency hormonal contraception). Only a couple of CPs had talked about sexual health with WOST. These discussions generated feelings of shame and embarrassment among CPs and, according to CPs, among some WOST. A few CPs questioned the appropriateness of discussing sexual health and other related topics (e.g., transactional sex) in community pharmacy. Male CPs considered that it would be more challenging for them to have these conversations with WOST, as some women might be reluctant and even refuse speaking to a man about these sensitive and intimate issues. Training female staff to deliver sexual health services could be a way to overcome this barrier in pharmacies where the CP is a man, according to the participants. As they mentioned, this would be a way to offer options for women to engage in sexual health services.

"Umm… with male pharmacists it may be worth training up a female technician as well just in case the client wanted to speak to a female instead about it (…) to give the patients the option" (William, 42 years old; interview).

Some CPs were more open to deliver sexual health services than others. One participant mentioned that he would only speak with clients about *"joyful things"* and avoid sensitive topics to prevent loss of clients *(Peter, 25 years old; interview)*. These difficulties in discussing sexual health were also associated with time constraints and the fact that most interactions with WOST were not in a private space. Overall, these taboos created important barriers to delivering sexual health services.

"It's a very sensitive topic hmm… it's very difficult to initiate hmm… and yes so I think hmm… almost some people might regard that as a taboo and shouldn't be discussing it (…) but you wouldn't initiate it… Because you are a substance misuser then you have to… there is a risk associated with that but then… almost like they feel labelled, yeah? So we… for that reason I think

that the time is not sufficient enough to pose this sort of questions with clients" (James, 32 years old; interview).

Some CPs were hesitant about starting a conversation on sexual health with WOST, fearing that clients would feel stigmatised. They felt especially reluctant to discuss sexual health with women that were not of childbearing age, had children already, or were taking contraceptives (e.g., pill). Based on the participants' narratives, not speaking about sexual health with these groups of women was a "sign of respect". This was associated with the taboo of sex and the assumption that sex is only related to reproduction. Likewise, some CPs expressed their unwillingness to discuss sexual health with WOST that were in a stable relationship. This was because of fearing women feeling accused for cheating on their partner, or their partner being unfaithful to them.

"Like she's in like a different period of her life [referring to a participant that was, supposedly, not of childbearing age] *and I know just feel bit more of a respectful thing (…) Yeah but obviously as a healthcare professional all of that barrier should be gone" (Barbara, 38 years old; interview).*

Participants were concerned about the appropriateness of starting a conversation on sexual health without any prompts (e.g., client expressing sexual health concerns). At the same time, they expressed the need to overcome these taboos and be able to discuss sexual health as it was within their role as a health professional. There were different suggestions on how to approach sensitive topics to deliver sexual health services in community pharmacy for WOST. One of them was to liaise with other professionals working with WOST (e.g., social workers), so that they introduced the service and it was therefore not unexpected for women when they attended the pharmacy. A second suggestion was to initiate conversations on sexual health within the context of a regular health assessment. A third suggestion was to request WOST to fill in a questionnaire about their health and include sexual health questions. Completing this questionnaire could serve as a prompt to then have a consultation on sexual health. Other suggestions were having a protocol on how to initiate and hold a conversation on sexual health, undertaking specific training, and having visual material to advertise the service (e.g., posters, leaflets, badges for pharmacy staff) and wait for clients to ask for information. As already mentioned above, building trust and having good rapport would aid starting discussions on sexual health. Participants also identified privacy and confidentiality as key aspects to delivering sexual health services.

"I guess we could maybe have leaflets or something when we give them their methadone just say 'oh this is what we're doing here now, so if you are interested then we are doing these services here now so have a read and think about it and if you've got any questions then ask'" (Monica, 39 years old; interview).

The quote above also illustrates that CPs were not always motivated to deliver the service or that willing to overcome the potential barriers to implement it. Most CPs took a passive approach in delivering services and engaging with WOST, while a few expressed the importance of delivering services proactively to involve clients.

5.2.3.2. Managing conflict

Based on participants' narratives, conflict was not common, even though all CPs discussed negative incidents involving OST clients as one of the most important downsides of providing OST. As explained above, conflict included arguments and aggression between clients and/or with pharmacy staff, diversion of OST and shoplifting. Arguments usually arose when there were problems with OST provision (e.g., their prescription got cancelled). These incidents had a negative impact on pharmacy staff and other pharmacy clients. They also made some CPs resentful of providing the service because of the challenges that it entailed, as well as the amount of time that it required.

"Hmm negatives… I mean it's always a… I would say there's always a few that you can't get through, there's always a few that sort of push the boundaries with behaviour and… things such as shoplifting, or just general behaviour in the shop that can be off-putting to some other costumers"(Paul, 50 years old; interview).

Some CPs mentioned that it was important to define boundaries and implement rules in community pharmacy to delimit WOST's behaviour. This was usually the way conflict was managed. For most CPs, it was usually distressing having to deal with negative incidents although they gained confidence as they had more experience. It was clear that CPs felt threatened and feared clients' reactions. At the same time, they made an effort to overcome these emotions and reaffirm the boundaries and pharmacy rules when these were violated. Some CPs mentioned having contracts that OST clients should sign at the start of their treatment. These contracts mainly stated what the expected and acceptable behaviour was (e.g., speak to pharmacy staff in a respectful manner).

"Hmm so there's more to do with the… hmm… nasty people as well maybe… obviously, you are not obligated to serve them. Normally when there's a new client come with a prescription, if it's a new one we would ask to sign a contract with the pharmacy saying that they're going to behave, they are going to treat you respectfully and they are not going to shoplift, I think. Sometimes they hmm comply with that, sometimes they don't. Most of the times, you know, they did but there's been a few sometimes when people have been rude to you or… and then you proceed…" (Daniel, 41 years old; interview).

Most CPs discussed such incidents with WOST. Some CPs communicated openly with clients on the next day and reminded them about the boundaries and rules of the pharmacy. Most clients then

apologised. Clients were usually warned at least two times before they were banned from the pharmacy and had to request getting their treatment from another one, although some clients were sometimes banned after the first incident based on the severity of the incident (e.g., verbal threats or physical violence). Negative incidents involving WOST were usually shared with other professionals working with the clients (e.g., GPs). This was commonly communicated to clients. Other CPs however used threatening communication to deal with conflicts or did not speak with clients at all and just proceeded to ban them from the pharmacy. These ways of managing incidents seemed to damage trust and rapport and created more conflict.

"I was a bit nervous because they can be quite aggressive but then you need to put always your foot down with them as well. You need to know what is like the… like the, how can I explain… you can't be too soft and you can't be too soft or too hard because if you are too hard they can go like oh why are you attacking me like that and it can be aggressive, but if you act too soft like they take advantage of you. So you need to keep always the distance between both" (Donna, 28 years old; interview).

5.2.4. Sexual health risk factors among WOST

CPs discussed about the factors that may be associated with higher sexual health risks among WOST. This theme was organised in two subthemes: 1) individual-level factors, and 2) socio-structural factors.

5.2.4.1. Individual-level factors

All participants discussed individual-level factors – those within the individual – that they thought to be associated with WOST's increased STI/BBV risk. Socio-structural-level factors presented in the next subtheme were less commonly mentioned by participants. CPs's views on factors associated with sexual health risks among WOST were often restricted to women's drug use. A few participants however mentioned that some of these factors might be common to the general population. Having a chaotic lifestyle was one of the key factors that participants thought of. This lifestyle was dominated by risky behaviours including drug-seeking and drug-using habits, and having condomless sex.

"Hmm… I think that a lot of substance misusers probably lead a chaotic lifestyle… often some of them may use on top of taking their methadone for example… and so they might be unconscious and not aware of what they are doing… there's a lot of factors, they are coming to… will involve ehh the patient to… female clients actually engage in sexual kind of contacts unprotected and it might not be planned, it might not be… so these are normal factors that can happen to everyone but

then certain, other factors are specific to substance misusers where they are kind of a using substance and their judgement is impaired…" (James, 32 years old; interview).

Some CPs believed that WOST lacked general intelligence, were not responsible enough and were not able to think rationally and in the long-term when using drugs. To them, this was associated with engaging in sexual health risks. Participants mentioned that WOST's priorities were using drugs and seeking sexual pleasure, especially when intoxicated. CPs thought that clients would not use condoms to maximise sexual pleasure and would also be unable to think about using condoms when intoxicated.

"And they are thinking only for short time, not for longer time… I don't think they really care… a long term… They are thinking only about this moment. If they are using drugs… They are not used to thinking in the long term so what is now it's important… I think… (laughs) *(…) I don't know… maybe they are thinking that the pleasure is bigger if they don't use a condom?" (Susan, 35 years old; interview).*

Lack of risk awareness and knowledge were other factors that CPs discussed to be associated with poorer sexual health outcomes. A few CPs expressed that other risks that WOST were exposed to were a priority (e.g., overdose) over sexual health risks. Similarly, one participant explained that the risk awareness was lower for STIs compared to BBVs as the former *"can be treated" (David, 25 years old; interview)*. Participants also thought that women in stable relationships were less aware of the risks of condomless sex. Some CPs thought that WOST were usually unaware of their sexual health status. Also, that WOST commonly accessed services such as emergency hormonal contraception, implying that they failed to engage in protective behaviours. This could be associated with what another participant said about WOST not having *"as much to lose as other people"* and the lack of care to their own bodies and health (Daniel, 41 years old; interview). One CP expressed that she did not believe that WOST were more at risk engaging in condomless sex if they were already sharing used needles with their sexual partners (Susan, 35 years old; interview).

"Well… that they are aware of the risks that they're… like mixing which has a higher risk of infections due to the injecting so… hmm you know, they are not the only people at risk but yeah. And when you are intoxicated whether it's on your mind or not (laughs)*, I don't know. I suppose that we have a part at this point, making sure that they are up-to-date of their own status, whether they've got Hep C* [Hepatitis C] *or any other blood-borne diseases cause that might make them more, a bit more cautious" (Paul, 50 years old; interview).*

5.2.4.2. Socio-structural-level factors

Some CPs mentioned socio-structural-level factors – those outside the individual – that they thought to be linked to STIs and BBVs. These were gender roles (e.g., condoms are a man's job) and women's general disempowerment (e.g., to negotiate condom use). Sexual partners might refuse to use condoms, hindering their use. One participant explained that women would have sex with men just to please them rather than respecting themselves.

"I mean the problem is with this particular population is obviously the power imbalance so if they have got somebody that doesn't want to use a condom and they are saying well you have to use it, the bloke is going to either you know take a swipe or he is going to dump them and go and find someone else so they have lost that protection or their source of drug or their source of money. Umm… so the education [of WOST] *is important" (William, 42 years old; interview).*

Experiences of GBV and the engagement in transactional sex were also mentioned in relation to STI/BBV risk. According to a few participants, transactional sex workers could be more at risk because they would engage in condomless sex if in high need for money and/or drugs. One CP also expressed that drug dealers often extorted women into transactional sex in exchange for drugs (William, 42 years old; interview). The same CP also mentioned that some WOST exchanged sex for protection from violence, usually from other men. Another participant however stated that transactional sex workers were usually more aware of the risks and used condoms more consistently, compared to other WOST (Peter, 25 years old; interview). Some CPs knew about transactional sex practices of a few of their clients, but this was never discussed. The assumptions made about the experiences of transactional sex added onto the stigmatising attitudes that CPs held towards WOST. These assumptions could also be having a negative influence on the way services are delivered to this group of women.

"Yeah and then obviously they themselves if alright they're drug dependent they'll do anything if they are desperate for their fix and they need the money. And if somebody says well I want without a condom they're not going to say no I don't believe they would yeah" (Martha, 57 years old; interview).

Another factor was the unavailability of condoms due to financial constraints or not having them available as sex was not planned. Besides, WOST's social and sexual networks were often perceived as high risk populations for STIs and BBVs (e.g., PWID).

"Hmm… they don't want, I mean, it can be both yeah… because those patients, they don't have a high income. They might want to buy, they might want to spend their money… they would just

rather have it without a condom or… yeah… the other thing might be a request by the, their partner so yeah… so that is what I think… (laughs)*" (Peter, 25 years old; interview).*

5.2.5. The role of community pharmacists

One of the topics discussed with CPs was their role as health professionals. There were three subthemes identified: 1) health promotion, 2) sexual (and reproductive) health, and 3) skills and training.

5.2.5.1. Health promotion

Most participants thought that CPs had a role to play in promoting the population's health. They explained how the role of CPs had developed into delivering more holistic health care rather than just dispensing medicines. Based on the participants' narratives, community pharmacies are a good setting for health promotion due to their widespread location, opening hours and not working on an appointment basis.

"We're there for to promote good health rather than just curing it it's about promoting healthy living. With our pharmacy at the moment we've recently signed up to become a healthy living pharmacy which means we can help with stop smoking, promoting healthy living, so that's something we're starting soon" (Monica, 39 years old; interview).

Participants however mentioned that time and workload pressures were barriers to health promotion in community pharmacy. Health promotion also required further human resources and physical spaces (e.g., consultation room). Apart from the time of delivering the service, there was time for the paperwork associated with the services. These were tasks that only CPs could undertake, so they could not be delegated to other pharmacy staff. There were however some services, or parts of services, that could be delivered by other pharmacy staff with the appropriate training.

"I think all this paperwork audit reports all of that sort of bureaucracy to deal with if that was just really cut and only the bare minimum done that would help too, but again sometimes right I want to get this report done or this questionnaire publication things like that done and it's got to be done and I'm not going to go and say oh here we go we want 15 minutes in the consulting room I'm just not going to do it" (Martha, 57 years old; interview).

Health promotion services needed to be commissioned and reports had to be sent to the commissioners for monitoring. As participants explained, some services were compulsory and regulated by the NHS. Other were optional and each community pharmacy decided whether to provide more services and to choose among those available. These decisions were dependent on the clientele's needs (see Tables 9 and 11 for more details on the services that the study participants

delivered). One participant explained that some health promotion services could incur in financial gains for the community pharmacy. For example, offering sexual health screening could lead to selling treatment for the person screened and possibly for the sexual partner(s). Other services were however not financially beneficial for the pharmacy and thus he would be less inclined to deliver them. For instance, free condom supply did not promote selling condoms. There were no health promotion services available for OST clients that were specific to the needs of this group of clients.

"I don't think so, because usually all the health promotion they are mostly for general public, yeah… like about prostate health, about blood pressure, smoking cessation, something like that. Is… I haven't seen anything that is target specifically for opioid patients in the pharmacy" (Peter, 25 years old; interview).

Signposting and working closely with other professionals working with WOST was part of promoting health and the role of CPs.

5.2.5.2. Sexual (and reproductive) health

Sexual health was rarely discussed with WOST in community pharmacy, unless it was within the context of a service already available in the pharmacy (e.g., emergency hormonal contraception). Some participants thought that WOST would speak with the GPs or staff in drug services about their sexual health. Delivering sexual health services entails having conversations around sensitive and intimate topics. As already discussed in this chapter, sex and sexual health are taboo topics that most CPs felt were difficult to discuss. According to the participants, breaking these taboos would be crucial to implement sexual health services. A few CPs had misconceptions about sexual health risks. For instance, being in stable relationships was sometimes seen as a zero-risk situation.

"Yeah just because all of the diseases that they can get even if they are on a pill or in the coil, they, they should always use the, the condom. I mean if they are married already, it is different but if they like always with a different partners yes, it is a good thing always to remind them" (Donna, 28 years old; interview).

Reproductive health was also discussed with a few CPs. These participants explained how WOST often missed the signs of pregnancy and unplanned pregnancies were common. Also, some WOST did not have their period due to low weight. Participants expressed that WOST lives are very chaotic and they should use long-acting contraceptive methods (e.g., coil) and barrier methods (e.g., female condoms). This was to prevent STIs and BBVs but also unplanned pregnancies. However, most participants referred to the male condom only, rather than discussing female condoms as a viable option for WOST. One explicitly talked about the benefits of the female condom stating that *"men would not need to notice"* if women used it, giving women more control over their sexual health

(William, 42 years old; interview). Pregnancy was also a time when some WOST considered and tried to stop using drugs. This was mostly unsuccessful, according to most CPs. Nurses and GPs were identified by a few CPs to be the professionals to deliver reproductive health services.

"And also I mean obviously condoms wouldn't be the only [method], *in terms of pregnancies don't know that many of them take contraceptive pill, can't think that they do. Again whether they would remember every day" (Barbara, 38 years old; interview).*

As participants said, there were no specific sexual health services for WOST in community pharmacy. They could however access sexual health services available for the general public. These were free condom supply (C-card scheme[14]), chlamydia screening and emergency hormonal contraception. There were however age restrictions for these services as they could only be accessed for free by women under 25 years old. One participant had offered free condoms to opioid clients as part of a scheme funded by a private condom company. He expressed feeling unconfident when offering condoms and that most clients did not take them (Daniel, 41 years old; interview). Apart from that case, condoms were only offered for free in NEP packs, and hygiene packs that were available for OST clients in the past in some community pharmacies. There was however no information on sexual health in these packs, just condoms. Also, as these were only given to clients that were collecting needles this service was not available to all WOST.

"Hmm [opening the needle exchange programme pack] *alcohol swaps, a condom… ah right, that's interesting! There should be leaflets* [there aren't any leaflets inside the pack] *with some contact details…" (Paul, 50 years old; interview).*

5.2.5.3. Skills and training

Staff had to undertake training to deliver each health promotion service available in their community pharmacy. This training was the CPs's responsibility. Training in sexual health and drug use was limited and such training never overlapped. A few CPs mentioned how they had trained "on the job" or during their training year to qualify as a CPs. Participants explained that other staff should also be well-trained. This was not necessarily to be able to provide health promotion services, but to run the pharmacy while the CPs was delivering health promotion services to clients.

"So for this [health promotion] *you need the staff to be trained, hmm… part of my staff is very well-trained, part of my staff is… the other part… is not s… so well-trained (…) But, as I said, the qualified staff helps me very much in these situations, with the health promotion, but there's still space to improve" (Fred, 36 years old; interview).*

[14] The C-card scheme consists of a free condom supply for people between 13 and 24 years old.

Some CPs recognised the need to undertake further training to work with WOST, and especially to deliver sexual health services. This is again related to the challenges in communicating openly and effectively with this group of clients and in sensitive topics. In order to deliver sexual health services for WOST, CPs explained that they would need to undertake specific training. Participants' suggestions for this training included communication and negotiation skills, safeguarding, sexual health in the context of drug use, and elements for the specific components of the service (e.g., screening procedures). Some CPs suggested that other pharmacy staff could be involved in delivering sexual health services to WOST. In this case, specific training would also be required for other pharmacy staff.

"Umm … I think it depends if it was anything to do with testing then might need especially if it was specific testing for taking blood samples (…) it would be good to know to be reassured if there is anything special you need to do while working this client group so probably would be helpful" (Paul, 50 years old; interview).

5.2.6. A sexual health service for WOST

The development and implementation of a sexual health service for WOST in community pharmacy was another theme identified. There were three subthemes: 1) acceptability, 2) potential barriers, and 3) components of the service.

5.2.6.1. Acceptability

Most CPs thought that offering sexual health services to WOST in community pharmacy was acceptable and potentially beneficial to the clients. Community pharmacies are well placed because of their location and the frequency in which CPs see WOST and the rapport and trust within most of these interactions. Community pharmacy was also seen as "friendly" setting for vulnerable subgroups of PWUD, such as people in situations of homelessness. There were mixed opinions regarding the benefits for the community pharmacy. Some participants thought that having these services available could generate additional pressure to pharmacy staff and be a barrier to run other services. Another point made that has been already mentioned was that sexual health services may not be acceptable in community pharmacy because of the mere fact of discussing sex. CPs felt that this sexual health is a sensitive and taboo topic that may need to be discussed in other settings. These could be drug services or GP practices. Besides, a few participants thought that having sexual health services for WOST only could alienate clients and expose pharmacy staff to "harmful situations" (i.e., conflict). A few CPs were also concerned that WOST could deem sexual health services in community pharmacy as not acceptable. Also, that WOST may not find the service beneficial to them.

"I definitely think there is a market for it you know it's, I suppose it is an area that is not really been looked at in pharmacy (...) I think if you, I think a pharmacy would be the perfect place because these kinds do come in every day, so if they weren't available that day they could maybe see you the next day or you know you could pick up a lot of people with you know it is difficult to catch people at [place name] *or you know" (Julia, 29 years old; interview).*

5.2.6.2. Components of the service

There were several suggestions for the components of the service, and ideas on how the service could be implemented. All CPs agreed that the service should be delivered free of cost to the clients and in a private space to ensure confidentiality and anonymity. Most other suggestions were common amongst most participants. One of the main suggestions by CPs was delivering the service in the context of a health assessment, or the Medicines Use Review[15]. This could include, not only sexual health, but other general health questions. Thus, instead of just initiating a conversation on sexual health, sexual health could be embedded within a general health assessment. Some participants mentioned that taking this approach could decrease the reluctance around discussing sexual health among CPs and WOST. This assessment could comprise information provision on sexual health (e.g., routes of transmission) to increase knowledge and risk awareness among WOST. Almost all CPs thought that the assessment should be done face-to-face in a consultation room. One participant mentioned that clients could complete a questionnaire for an initial health assessment at home, and then have a consultation (Michelle, 27 years old; interview). As presented above, having this questionnaire could also break barriers to discuss sexual health in community pharmacy.

"[I] *quite like the idea about an assessment, like maybe sort of quarterly would be quite good I think, just to sort of keep on top of everything and then I suppose that would then open up if they want to ask you anything and things like that that they might want to ask" (Olivia, 27 years old; focus group).*

"You [CP] *will have a chat with them, you will obviously talk about their sexual health history and whether they are using protection or not and when they were last, if they've been screened and if not you could maybe try and arrange a screening umm… and then sort of then give an overview about the dangers of unprotected sex as well" (Julia, 29 years old; interview).*

Based on the participants' narratives, consultations should be short to be feasible. At the same time, enough time should be allocated to these consultations to facilitate conversations on sexual health and other related sensitive topics. Participants also thought that there would need to be a clear protocol on how to deliver the service. Some CPs believed that having this protocol could increase

[15] Advanced service in community pharmacies in the UK. The service consists of a discussion and review of clients' prescribed medicines with a CPs.

their confidence in delivering the service and discussing sexual health with WOST. It was also mentioned that the service outcomes and intervention processes would need to be recorded to assess the quality of the service.

"It would be easier for example, if it's a protocol yeah… at least in your head, to know what would manage the discussion" (Susan, 35 years old; interview).

Offering sexual health screening (i.e., testing for STIs and BBVs) was another main idea of CPs. In case of positive diagnoses, CPs could provide treatment when possible (e.g., for chlamydia) or refer to other health professionals (e.g., for HCV). However, a few CPs expressed concerns about pharmacy staff not being the appropriate professionals to deliver screening results. Participants thought of also providing HBV vaccines. Other participants stated that signposting to other professionals would be required for safeguarding concerns (e.g., GBV). Condom supply was another key suggestion made by the participants and could be similar to the C-card scheme offered to the general population.

"Umm I suppose you'd probably want a testing some way of doing testing and some way of well be the main thing I suppose testing, feeding back results and then sort of ability to give them [WOST] *advice so some training for the pharmacy to make sure they* [pharmacy staff] *are up to date on all the sort of best practices for prevention of infection. Maybe some form of condom supply cause at the moment the C-card is only any good if you are up to 24 I don't know well I suppose they* [WOST] *could go to the CASH* clinic [sexual health clinic] *as an adult at any age to get free condoms but again that's not maybe so likely for this client group so some sort of supply of condoms over and above the sort of one or two they stick in the needle exchange pack" (Paul, 50 years old; interview).*

A few CPs thought of offering reproductive health services alongside sexual health services, such as emergency hormonal contraception or signposting for contraception. Two CPs thought that the service could be scaled up to men on OST and not just WOST. According to these participants, men on OST also had sexual health needs that could be addressed in community pharmacy. Likewise, a couple CPs explained that other groups of PWUD attending community pharmacy could be offered the service (e.g., people accessing NEP). CPs however thought that these other clients would be more difficult to engage as they spent less time in the pharmacy.

"Umm and it could even be a signposting call because obviously we are not able to do contraception per se umm but it would be a signposting would you like me to arrange an appointment with the nurse to see" (William, 42 years old; interview).

Some CPs highlighted the need to actively advertise the service using written material (posters and/or leaflets) in community pharmacy. The service could also be introduced in drug

services and other services that WOST attend (e.g. GP practices). As already mentioned, this could be a challenge for CPs that disagreed on having visual material with a sexual health-related content and specifically for WOST in their pharmacies. The service could be first introduced when WOST started their treatment. Most CPs thought that community pharmacy was ready for implementing sexual health services for WOST as most pharmacies already offered the same or similar services for the general population.

"If pharmacies are already doing, obviously if they are already doing supervised consumption, and they are already doing needle exchange, and they are already doing EHC [emergency hormonal contraception]*, you just put them together. It can't be that difficult to sort of go "This is a separate one but it basically pulls two serv, two services together". It can't be that bad. Places that they don't… that they don't needle exchange, that they don't EHC might struggle cause they might not have that, that knowledge base. But… it's not hard to get it, it's gotta be a bit proactive, you've gotta do something outside of work (laughs)" (Michelle, 27 years old; interview).*

5.2.6.3. Potential barriers

All participants identified challenges to implementing a sexual health service for WOST in community pharmacy. Some of these barriers have already been mentioned in this chapter but are further discussed throughout this theme. The barriers were: time and workload constraints; privacy and confidentiality; stigma and discrimination; communication, trust and rapport; and financial constraints.

All participants identified time and workload as main challenges to deliver sexual health services for WOST in community pharmacy. Most however mentioned that they would be willing to deliver the service if it did not require much time and the volume of clients was not high. This was compatible with CPs believing that the service should not require much time to be feasible. Booking appointments was not considered feasible for most participants, due to WOST's difficulties in remembering and attending appointments. Instead of having an appointment system, a few participants suggested setting up a walk-in clinic to deliver the sexual health service. According to most CPs, all pharmacy staff should be involved in delivering the service. The level of involvement would depend on the components of the service and the pharmacy staff's training. Training should be available for CPs and other pharmacy staff to deliver the service, as already discussed.

"So say you were doing screenings and blood samples, I don't know how comfortable or confident health care assistants or dispensing assistants would feel to do that, so maybe they wouldn't do that, but then if it was just giving them information and doing the condom supply, I don't see how they should have a problem with that" (Rachel, 29 years old; focus group).

There were mixed opinions on whether WOST would engage in the service. Some CPs believed that it would be difficult to engage some clients. Some participants mentioned that some WOST may not want to engage in the service (e.g., unstable or more "aggressive" clients), think that they do not need it (e.g., women in stable relationships), or be reluctant to discuss sexual health with CPs (especially male CPs). Other CPs mentioned that WOST would be open to accessing the service. The limited time that most clients spent in the pharmacy were other barriers, as their chaotic lifestyle (e.g., to attend follow-up appointments to initiate STI treatment). A few participants mentioned that clients should always be given the option and freedom to make decisions over engaging in the service.

"I think some women would be more open to it than others. I think perhaps those women that like the lady I was talking about that's been in a relationship for a long time might be less interested than others, she might perceive herself to be at lower risk even though she might not be (…) So they [women in stable relationships] *might dismiss it immediately" (Barbara, 38 years old; interview).*

As already presented in this chapter, building trust and rapport, and delivering non-stigmatising and non-discriminatory services would be key to delivering sexual health services to WOST. Also, to engage clients in accessing the service. Discussing sex and sensitive topics was found to be challenging by most participants as introduced previously in this chapter. For this reason, the service needed to be provided in private, so in consultation rooms to ensure confidentiality and anonymity. Otherwise some WOST may not be willing to engage in the service, as mentioned in the narratives of a few CPs.

"[I] *don't know guess they just feel embarrassed about it* [discussing sexual health] *and just maybe because of it being in the pharmacy and lots of people could overhear even though we do have the option to talk in private maybe they're not aware of that. Even if there isn't anyone in the pharmacy they are still other staff members around and they may not want to talk in front of them (…) They just need to have a consultation room some privacy shouldn't be a problem" (Monica, 39 years old; interview).*

There were also space limitations to have written material to advertise the service, such as posters and leaflets: *"Space restrictions as well because we don't have as much space available, and you have to put posters and things or leaflets" (Daniel, 41 years old; interview)*. A few participants were somehow reluctant to have sexual health posters in community pharmacy, as they were deemed "inappropriate" for a setting aimed at the general population.

"*I can't expect to see this, any advertisement about blood-borne viruses in the community pharmacy because we have to cater all the age groups, we have to cater all… children, elderly…" (Peter, 25 years old; interview).*

Most participants discussed the need for the service to be commissioned, especially those participants that were concerned about the financial gains for the pharmacy. Those services that were commissioned were the ones prioritised, especially considering the time and workload pressures. The sexual health service should then be commissioned so that CPs could allocate time to delivering it.

"[The service] *needs to be commissioned and the pharmacists needs to get a remuneration for it to allow time… for the time and efforts put into it… because… I think that everywhere you go nowadays is kind of pressure and kind of an obligation to… an increase workload, it's very difficult to provide this kind of services in addition to what we do (…) yeah if it's a commissioned service it is more likely that people would do it" (James, 32 years old; interview).*

5.3. Summary

There were six themes identified in the interviews and focus group with CP. These themes relate to their interaction with WOST and their views on the factors associated with WOST's higher vulnerability to sexual health-related risks. Most of the narratives were around the provision of services to this group. Participants discussed the opportunities for improving health promotion services and implementing a sexual health service for WOST alongside the provision of OST.

Overall, it seemed that CPs had mostly positive interactions with WOST, despite the embedded stigmatising attitudes and discriminatory behaviours towards this group of women. There seemed to be a dissonance in how CPs viewed WOST and their attitudes towards them. This was evident when some participants expressed understanding and empathy towards WOST, while using stigmatising terms to refer to them. It appeared that there was a general dissonance between how CPs knew that they should interact and feel about WOST, and their actual beliefs, attitudes and actions. Conflict with WOST and other OST clients was mentioned to be rare, but still seemed to feed into the stigma and discrimination towards WOST. When discussing potential STI/BBV risk factors, CPs seemed to take an individualistic approach that was mostly centred on women's drug use and other individual-level factors. Communicating openly and effectively with WOST was a great challenge for most CPs, although they recognised the importance of good communication to engage WOST in pharmacy services. Health promotion had been incorporated in the role of CPs, which included time and workload pressures that limited their engagement in delivering services effectively. Liaising with other pharmacy staff and other professionals was thought to be key in coping with these pressures. Implementing sexual health services for WOST in community pharmacy was generally acceptable for CPs, although important challenges would need to be overcome.

The findings presented in this chapter are further discussed in Chapters 6-9.

CHAPTER 6. Understanding Sexual Health Risks among Women on Opioid Substitution Treatment

This chapter presents a synthesis of findings from the systematic literature review (Chapter 3) and data from semi-structured interviews and focus groups (Chapters 4 and 5), in relation to the factors associated with sexual health risks among WOST. This synthesis helps to understand why WOST may be vulnerable to STI/BBV sexual transmission. The synthesis addressed the first objective of this study, to identify and explore the factors associated with the heightened risk of sexual transmission of STIs and BBVs among WOST. This chapter corresponds to Step I of the service design, according to the IM approach (see Chapter 2, page 16). Data syntheses in relation to the role of CPs promoting sexual health among WOST, the acceptability for sexual health services in community pharmacy, suggestions for service design and potential barriers are discussed in chapters 7-9.

6.1. A Logic Model of Sexual Health Risks among WOST

The Logic Model of the Problem is an adaptation of the PRECEDE model used in the IM approach (Bartholomew Eldredge et al., 2016) (see page 16). This conceptual model is a representation of the main associations between determinants, factors, health outcomes, and quality of life outcomes identified through this research. It is important to note here that this model does not represent *causal* relationships between elements, but *associations* amongst these. The model was developed using data from the semi-structured interviews and focus groups with WOST and CPs (Study 2), and findings from the systematic literature review (Study 1). The model formed the basis of the development of the pharmacy-based sexual health service for WOST. It particularly helped when stating the goals for the service and developing Step II of the service design (see Chapter 8).

6.1.1. Description of the model

The model is described in this section, firstly discussing the health outcomes and related quality of life. Then, the factors and determinants of health that seem to be associated with these health outcomes and quality of life outcomes.

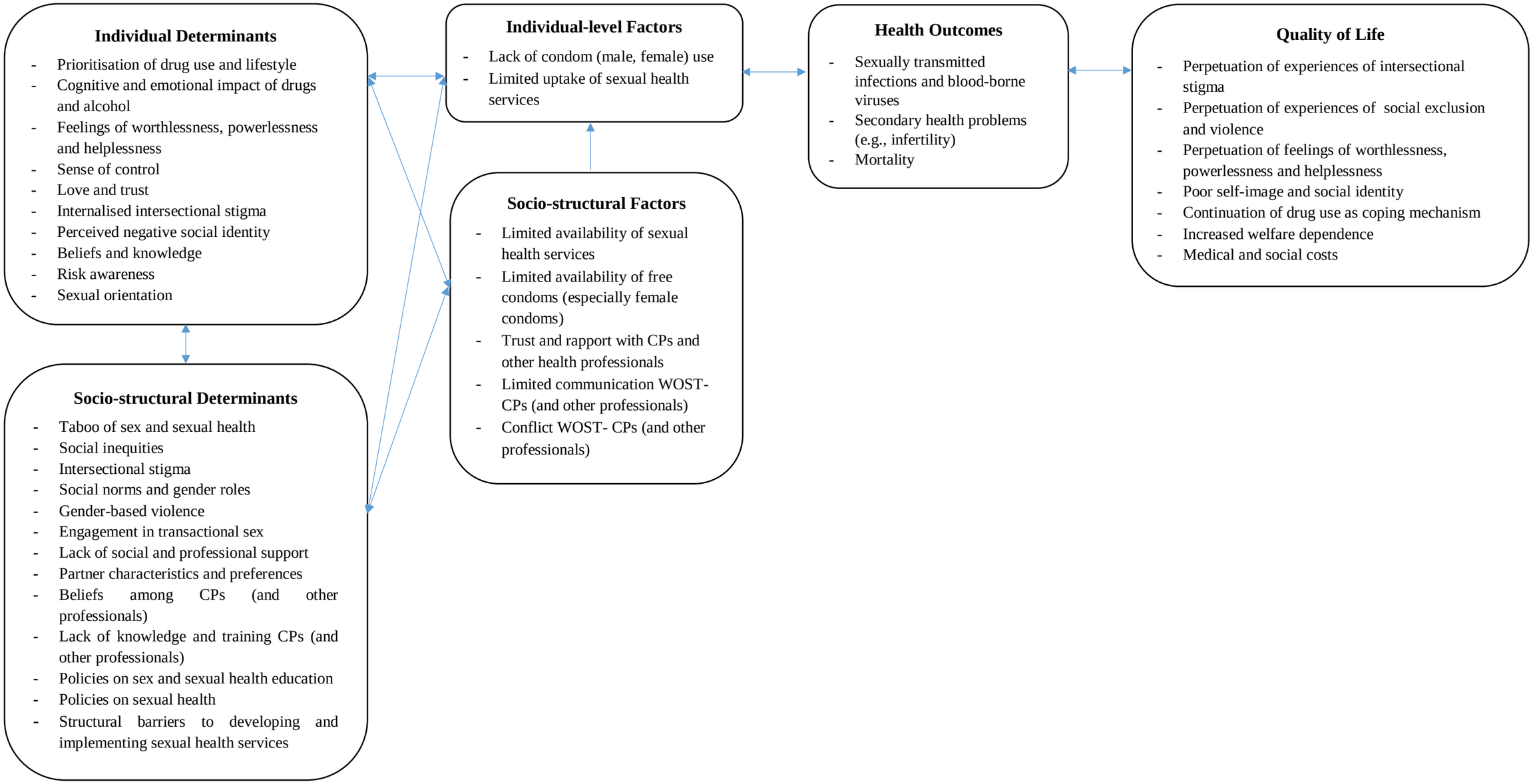


Figure 9. Logic Model of the Problem on Sexual Health Risks among WOST.

6.1.1.1. Health outcomes and quality of life

Health outcomes refer to the health conditions that this research focuses on, and that the sexual health service developed aims to address. In this model, health outcomes were STIs and BBVs, other secondary health problems (e.g., infertility due to untreated STIs), and mortality (e.g., from untreated HCV).

Quality of life (QoL) in this model refers to the potential impact of health outcomes on WOST's functioning and wellbeing in physical, psychological and social areas of their life. Living with an STI or a BBV or other health-related conditions could have a great impact on the wellbeing and functioning of WOST. Based on the data presented in Chapters 3-5, STI/BBV diagnoses could be associated with the perpetuation of experiences of intersectional stigma, social exclusion and violence. They could also perpetuate women's feelings of worthlessness, powerlessness and helplessness, poor self-image and negative social identity. WOST's narratives (Chapter 4) and the systematic literature review (Chapter 3) suggested that a deterioration of health could also be a factor for the maintenance of women's drug use, as using drugs was often a way to cope with emotional pain. Other social consequences of living with an STI or a BBV – and especially for chronic conditions such as HIV – would be the increased medical and care costs for WOST, and women's dependence on social welfare.

6.1.1.2. Determinants and factors associated with health outcomes and quality of life

Data from this PhD research suggested that there are multiple complex associations between the determinants and factors identified, and with health outcomes and quality of life. Almost all elements are related to each other at some level, which creates a challenge for service design. These interrelations are described in this chapter, organised by the main individual-level factors: 1) lack of condom (male and female) use, and 2) limited uptake of sexual health services. These were the factors most directly associated with STIs and BBVs among WOST.

6.1.2.2.1. Lack of condom (male and female) use. The lack of female and male condom use was one of the key individual-level factors that were found to be associated with STIs and BBVs among WOST. As represented in the conceptual model, there were socio-structural factors that were related to individual-level factors. Individual and socio-structural determinants were also found to be associated with individual-level and socio-structural factors (see Figure 9). Despite data on both female and male condom use being included, it is important to highlight that most data were on the use of male condoms.

6.1.2.2.1.1. Individual-level determinants. As described in Chapter 4, women's lives were often organised around seeking and using drugs. This lifestyle entailed engaging in multiple risks for

their health, even to the point of significant risk of losing their lives. WOST explained how the cognitive effects of using drugs and alcohol lowered their risk awareness. Women's perception of control over their lives and (sexual) health was practically non-existent, especially during periods of heavy drug use. This could be explained by women's experiences of neglect, stigma and violence throughout their lives, as well as their lifestyle. Women often felt hopeless and powerless to change their situation. It is also crucial to understand that drug use was often a way for women to cope with the trauma. However, using drugs perpetuated experiences of stigma, violence and social exclusion. It was a vicious cycle in which WOST had a very limited sense of control. WOST seemed to conform to the health risks that their lifestyle entailed. This, aggravated by a great sense of disempowerment, was a factor that led women to engage in condomless sex. Women somehow perceived that having a poor (sexual) health was part of their fate as PWUD. Engaging in condomless sex was *just* something else that they had no control over. Transactional sex workers felt more empowered to make decisions over using condoms with clients. However, they still felt powerless over doing so in sexual encounters with non-clients, and in certain situations with clients (e.g., when withdrawing from drugs and being offered more money for condomless sex).

Love and trust were other emotional components that seemed to hinder condom use. WOST often had a low sense of self-worth. Feeling loved and building trust with another person appeared to be ways for them to be emotionally connected with others, potentially increasing their feelings of worthiness. Condoms were perceived as a barrier for intimacy, and thus for love and trust. In this way, condomless sex was seen as a mechanism for WOST to seek love and trust with their sexual partners. In the same vein, transactional sex workers were more likely to use condoms with clients to create emotional barriers and cope with sex exchanges.

WOST often expressed how they felt dehumanised and socially excluded. Their social identity was generally negative as they felt like undesirable outliers within their communities and society. Women had internalised experiences of intersectional stigma, in relation to their gender, drug use, engagement in transactional sex, homelessness and sexual health status. All these beliefs, perceptions and feelings towards themselves had a negative influence on WOST's self-worth. Women did not perceive themselves worthy enough to care for their (sexual) health, and even their lives at times. Data from this study suggest that this could be related to engaging in condomless sex.

Women's knowledge, beliefs and risk awareness were other determinants identified in the data. WOST did not always hold positive beliefs around condom use and lacked knowledge on sex and sexual health. Risk awareness was often low as, even if WOST *knew* the risks, they would not personally *feel* at risk. However, when looking carefully at the data, it was apparent that WOST's lifestyle and emotions – worthlessness, powerlessness, helplessness, love and trust – outweighed the potential positive influence of increasing knowledge and risk awareness, and changing beliefs. This

suggests that, among individual-level determinants, emotions could be influencing women's behaviour more than cognitive rational aspects.

Sexual orientation was a factor identified in the systematic literature review. In this review, lesbian and bisexual women were identified to be more vulnerable to sexual health risks as, for example, they were more likely to engage in transactional sex. This was explained by the social and health inequities experienced by this group of women because of their sexual orientation (see Chapter 3). Apart from a few comments in relation to same-sex sex in the interviews with WOST, data from the semi-structured interviews and focus groups did not reflect the potential links between sexual orientation and sexual health. This is worth exploring in future research.

6.1.2.2.1.2. Socio-structural-level determinants and factors. There were important determinants at the socio-structural level that seemed to be associated with not using female and male condoms. These determinants also influenced socio-structural factors, that were then associated with condomless sex.

WOST's narratives, described the challenges they experienced in negotiating (and using) condoms. One of the common reasons was partner's reluctance towards using male and female condoms (e.g., because it limited the partner's pleasure). This intersected with gender roles and power inequities in sexual encounters. Men were often in a position of power over women in sex, which included men's control of condom use practices. Despite participants' claims for women's empowerment, it seemed that most WOST took submissive roles and felt powerless over caring for their sexual health.

Almost all women in this study disclosed having experienced GBV throughout their lives. Experiencing GBV was also associated with gender roles and power inequities between men and women. Violence was a main theme in the data and was clearly associated with a lack of condom use. Transactional sex workers and homeless women seemed to be more vulnerable to violence. In situations of violence, WOST were simply not in control of their bodies, health and wellbeing. Thus, neither could they make decisions over using condoms. Perpetrators of sexual violence would not normally use condoms. Interestingly, the role that WOST assumed in sexual encounters with transactional sex clients was different. Transactional sex workers felt more entitled to negotiate condom use and appeared to be less likely to engage in condomless sex with clients. In turn, engaging in transactional sex increased WOST's risk of experiencing violence and forced condomless sex. Lack of condom use was also more likely among women in transactional sex, as already discussed.

Experiencing intersectional stigma and other social inequities such as poverty was also part of WOST's day-to-day life. Being in situations of marginalisation meant that WOST had limited access to social resources, such as a stable sufficient income. This also translated into financial constraints to obtain condoms. Living situations of stigmatisation and marginalisation appeared to exacerbate

women's feelings of worthlessness, powerlessness and helplessness. The relationship between these and condom use was already discussed above.

The taboo of sex and sexual health, and the lack of formal (e.g., school) and informal (e.g., parents) education on these topics were identified to be other potential barriers for using condoms. Women did not have enough knowledge and had not been encouraged, through their education, to share their concerns of sex and sexual health with partners, family and friends, or health and social health professionals. Instead, WOST were educated to repress their sex and sexual health needs. Educational policies and informal education appeared to be associated with women's knowledge and beliefs around sex and sexual health, and risk awareness. These could be associated with a lack of condom use.

There were also associations between failures in the educational, social and health systems and WOST' sexual health, as the needs of this group of women did not seem to be covered by educational, social and health policies. WOST are a minority group of women that are highly stigmatised, which appears to translate into social invisibility, exclusion, and structural violence[16]. There were limited sexual health services that addressed the needs of WOST, and those available were mostly focussed on screening for BBVs. Preventive measures were also focused on BBV prevention and injecting risks, overlooking sexual transmission as a main vector of infection. These services were embedded within drug services and did not seem to address all the sexual health needs of WOST, nor the barriers WOST experienced accessing and engaging in services. Through participants' narratives, it was also clear that most CPs had a limited understanding of WOST's needs and the context of their drug use. This was also perceived by WOST, in CPs and other professionals working with them. Beliefs and misconceptions of health professionals could be reflected in policy strategies, and vice versa. Data from this study suggest that current policies and CPs (and other professionals) may be missing WOST' sexual health needs, and thus restricting the availability of condoms (especially female condoms). Despite the links between condom availability and their use being unclear, limited opportunities to obtain free condoms could create barriers for condom use among WOST.

On the other hand, WOST's general lack of social and professional support (e.g., trauma counselling) seemed to be another factor to women's feelings of worthlessness, powerlessness and helplessness. These, as discussed above, were linked to a lack of condom use.

6.1.2.2.2. Limited uptake sexual health services. The second individual-level factor was the limited uptake of sexual health services among WOST. There were several socio-structural factors associated with this lack of access to services. Individual and socio-structural determinants were identified to be related to these factors (see Figure 9).

[16] Violence embedded in social systems and institutions.

6.1.2.2.1.1. Individual-level determinants. When WOST accessed sexual health services it was often because they were directly offered to them, and especially when they were given financial incentives to engage in these services (e.g., for HCV screening). Other reasons for accessing these services were having symptoms or knowing that a sexual partner had an STI or a BBV. Thus, WOST seemed to access sexual health services *only* when there were clear prompts for them to do so.

As for condom use, the way that women felt and thought of themselves were key barriers to accessing sexual health services. Feelings of worthlessness, powerlessness and helplessness, and a perceived negative social identity were perpetuated by experiences of intersectional stigma and violence (GBV and structural). Women perceived themselves as not worthy enough to protect their health, thus accessing sexual health services was not usually in their minds, neither was caring for their health.

There was some sense of fatalism in the narratives of some women too that suggested that WOST "accepted" poor health as part of their lifestyle and even their social identity. They also felt that they did not deserve better. Having an STI or a BBV was *just* another condition and problem added to the numerous difficulties that women encountered, and the risks that they were exposed to. Caring for their sexual health and attending sexual health services were again not on WOST's agendas.

Love and trust were also a barrier for WOST's perception of risk and vulnerability to STIs and BBVs, as discussed previously in this chapter and Chapter 4 (see page 93). Having a low risk perception could also lead women to believe that they did not need sexual health services, thus not accessing them.

Beliefs (e.g., sexual health services are only for young people) and lack of knowledge regarding sexual health services (e.g., not knowing the location of services) could also limit WOST's engagement with these services. It was unclear whether other individual determinants in the Logic Model of the Problem were associated with the limited access to sexual health services among WOST.

6.1.2.2.1.2. Socio-structural-level determinants and factors. There were several socio-structural factors and determinants associated with WOST's restricted access to sexual health services.

Overall, there was a lack of sexual health services that addressed the specific needs of WOST. Structural barriers for developing and implementing sexual health services (e.g., funding restrictions) could be an explanation for the limited availability of sexual health services for WOST. These barriers are further discussed in Chapters 7 and 9. Another explanation is related to structural neglect and structural violence towards WOST, a population group living in social isolation, marginalisation and

exclusion. This neglect and violence from the institutions may be reflected in the lack of attention that the sexual health of WOST has in educational and health policies, which then translates into a lack of specialist services available for this group. This lack of consideration may also be reflected in the training of health and social care professionals such as CPs, as well as their beliefs and understanding of WOST's realities and needs. This could be reducing the quality of care that these professionals are providing to WOST, creating great challenges for women to engage with the services. It then appears to be essential to involve policymakers and professionals working with WOST in improving the sexual health of this group of women. Improving policy and reducing social inequities could lead to a step forward in providing sexual health services tailored to WOST. Training of professionals should be improved to reduce the gaps between the needs of WOST and the care that women receive.

Although WOST could access services for the general population, existing sexual health services addressing the specific needs of WOST were only embedded within drug services. Recovery from drug use was the priority when engaging in drug services, while sexual health was attended to on a few occasions, mostly in the form of routine BBV screening and hepatitis vaccinations. As already mentioned above, there were three main situations in which women engaged in sexual health services. One of them was when services were directly offered to WOST by health and social care professionals. Thus, it again appeared that these professionals had a key role in women's access to sexual health services. However, based on the data it was clear that poor communication and conflict between WOST and health/social care professionals was a significant barrier for women to engage in services. Building trust and positive rapport is key for professionals to promote the use of available services among WOST, and those that might be available in the future.

As previously discussed, experiencing GBV and intersectional stigma seemed to be associated with WOST's feelings of worthlessness, powerlessness and helplessness. This meant that WOST did not believe that their health was important, they felt that they had no control over it, and there was no one there to help them. Accessing sexual health services may then not be considered to be an option for them. Besides, accessing these services made them feel exposed to further stigmatisation and deteriorate even more their sense of self-worth and social identity. The taboo of sex and sexual health created an even greater challenge for WOST to attend sexual health services.

Engaging in transactional sex increase sexual health risks. This was due to the heightened vulnerability to experiencing sexual violence, engaging in condomless sex with non-clients and having condomless sex with clients at times (especially when withdrawing from drugs). It was however unclear whether women who sold sex accessed services more than other WOST. As for other WOST, transactional sex workers had engaged in sexual health services available in drug services. Other women had got support from services for sex workers, which may be more tailored to their needs. There was however a call for more services that they could access without feeling stigmatised.

6.2. Summary

This chapter included a synthesis of the data presented in Chapters 3 to 5, regarding the factors that are associated with the risk of sexual transmission of STIs and BBVs among WOST. This synthesis was presented through the development of a conceptual model. This chapter comprised the description of this model and included determinants, factors and health outcomes that a pharmacy-based sexual health service for WOST could address. The service design is further developed in Chapters 7 and 8, and also discussed in Chapter 9.

It became clear throughout this chapter that there is a complex interrelation between determinants and factors associated with STI/BBV sexual transmission among WOST. This intersection of multiple elements at different ecological levels needs to be considered to understand the sexual health risks of this group of women. Also, to understand the gaps between what needs to be addressed and where the focus of policies and health services currently lies.

This research highlighted that WOST may have a limited use of (female and male) condoms, and a limited access to sexual health services. This could be partly explained by the lack of available sexual health services that address the specific needs of this group of women. Conflicts between WOST and CPs (and other professionals) were a barrier for women to engage in services. Understanding the relationship between WOST's lack of self-worth and disempowerment, with their sexual health was key. It seemed that WOST were not caring for their sexual health, nor accessing services, partly because of how they felt about themselves. Experiences of intersectional stigma, GBV, and the permanent social invisibility and exclusion felt were at the core of WOST's feelings of worthlessness, powerlessness and helplessness. These shaped women's social identity, which was in itself maintained by WOST's lifestyle. At the same time, the structural neglect and structural violence experienced by these women could be perpetuating the stigma, violence and social exclusion among WOST. Besides, experiences of GBV and intersectional stigma clearly restricted the opportunities of WOST to protect and care for their sexual health.

Overall, it was a vicious cycle over which WOST felt they had no control, nor seemed to have the support that they needed. It appeared that WOST felt the pressure to change their own personal situation, while there were important social and structural elements that need to be addressed. In fact, this research highlights that these are key in understanding WOST' sexual health risks and need to be at the core of policies and health services for this group of women. This discussion is further developed in Chapter 9.

CHAPTER 7. Opportunities for Service Design

7.1. Overview

This chapter presents data merged from the interviews and focus groups with WOST and CPs in relation to developing a sexual health service for WOST in community pharmacy. See Chapter 4 and 5 for more details on the data for each participant group. The data in this chapter were part of the needs assessment of Step I and informed Step II (see Chapter 8). These data were reported in the form of a peer-reviewed publication and addressed three objectives of this PhD study (see page 10). These were to explore the views of WOST and CPs on 1) the acceptability of delivering sexual health services in community pharmacy for WOST, and the role of CPs; 2) the potential barriers for the pharmacy-based services; and 3) suggestions for the service. The article was submitted for publication to the peer-reviewed journal *BMC Public Health* on 14th of November 2018. The manuscript was re-submitted to *BMC Health Services Research* as suggested by the editor of *BMC Public Health.* Submission was on 5th of December 2018. The manuscript was not accepted due to the lack of reviewers available. The manuscript was then re-submitted to the European Journal of Public Health on the 4th of July 2019. The manuscript is under review.

7.2. Publication

Reference: Medina-Perucha, Scott, J., Chapman, S., Barnett, J, Dack, C. & Family, H. (*under review*). Sexual health services for women on opioid substitution treatment: The role of community pharmacist. *European Journal of Public Health.*

Abstract

Background. Women on opioid substitution treatment (WOST) are at heightened risk for the sexual transmission of sexually transmitted infections and blood-borne viruses. This study aimed to explore the opportunities to promote their sexual health in community pharmacies in England. **Methods.** Semi-structured interviews were conducted with 20 WOST and 14 community pharmacists (CP). A focus group was run with three CP. Participants were recruited in drug services and a service for sex workers (WOST), and in community pharmacies (CP). Data collection took place between October 2015 and September 2017. Data were analysed using Framework Analysis and directed Content Analysis. **Results.** CPs could play a role in promoting sexual health among WOST. Sexual health screening, treatment, and condom supply were suggested as potential ways of delivering pharmacy-based sexual health services. These services should be actively offered to WOST, delivered in a private space and free of cost. We identified several challenges to overcome in order to design and implement sexual health services for WOST in community pharmacies. **Conclusions.** This study

highlights the potentially key role CPs can have promoting sexual health and addressing health inequities among WOST. Improvements in pharmacists' training are required in order to address stigma towards WOST, and promote trust and positive rapport. Structural changes are also needed to broaden the services available for this group of women and improve their access to healthcare.

Keywords

Women; Sexual health; Opioid substitution treatment; Qualitative research; Community pharmacy

Introduction

People who use drugs (PWUD) are at high risk of sexually transmitted infections (STIs) and blood-borne viruses (BBVs) – i.e., HIV, Hepatitis B and C – (1-10). Most preventive strategies for PWUD have focused on the prevention of HIV and Hepatitis C, especially among people who inject drugs. These have generally overlooked the prevention of STIs and the sexual transmission of BBVs (11-14). Women are especially vulnerable to STIs and BBVs. This is due to several factors at different social ecological levels (15). Socio-structural factors include gender inequities, gender-based violence, and intersectional stigma. At the individual-level, feelings of love and trust are among barriers for condom use.

Amongst drug-using women, women on opioid substitution treatment (WOST) are an accessible group as they attend social and health services on a regular basis, most notably their community pharmacy where they collect their opioid substitution treatment (OST). In the United Kingdom (UK), WOST often collect OST from community pharmacies on a daily basis. Community pharmacists (CPs) in the UK are highly accessible and key in delivering public health services, with an expanding role in health promotion (16-17). Sexual and reproductive health services for the general population, including STI screening and provision of emergency hormonal contraception, are already available in community pharmacies across the UK. Community pharmacy services for WOST are limited to dispensing OST and harm reduction strategies to prevent BBVs (e.g., needle exchange programs) (18). There is thus an opportunity to explore whether CPs could provide more holistic care to WOST, including sexual health promotion. But, research is needed to design and implement sexual health services that meet the needs of WOST and reach this vulnerable group. Making sexual health services available for WOST alongside their OST presents an opportunity to improve access to healthcare and reduce health inequities for this group of women.

This study explores this opportunity to promote sexual health among WOST in community pharmacy, considering the perspectives of this group of women and CPs. It is part of a larger project that aims to design a pharmacy-based sexual health service for WOST. This paper addresses three objectives of this project: 1) explore the role of CPs in preventing STIs and BBVs among WOST, 2) characterise

key components of a service in community pharmacy to promote sexual health among WOST, and 3) identify potential challenges.

Methods

Thirty-four semi-structured face-to-face interviews were conducted with WOST (N=20) and CPs (N=14) over seven months between October 2016 and April 2017. One focus group with CPs (N=3) was also run on September 21st 2017. All participants completed a non-standardized questionnaire after the interview or focus group (see Tables 1-3).

Recruitment Strategy

Recruitment of WOST was opportunistic and venue-based in drug services and a service for sex workers in South West England (Bath, Midsomer Norton and Bristol). Previous studies with hard-to reach populations have used similar recruitment strategies (19). CPs were recruited through community pharmacies in the same localities. A £10 LovetoShop voucher (multi-retailer gift voucher available in the UK) was offered to all participants.

Data Analyses

The interviews were analysed using Framework Analysis (20) and the focus group using Directed Qualitative Content Analysis (21). Data were primarily analysed by one of the researchers (LMP) with the support and guidance of the rest of team. NVivo software version 10 was used for the analysis. Descriptive statistics of the questionnaire data were undertaken, using SPSS software.

Ethical Considerations

This study received ethical approval from the [institution granting ethical approval] on the 17th of August 2016 [reference numbers ethical approvals].

Results

Data from semi-structured interviews and the focus group were merged for both groups of participants and are presented below. See Tables 1-3 for participant characteristics. Main findings are structured by the paper's aims and in two sections: the role of community pharmacists, and potential challenges.

The role of community pharmacists and key components for pharmacy services to promote sexual health

All participants considered it acceptable that community pharmacies offered sexual health services. Both groups recognized that, in principle, community pharmacy was very well placed to provide these services. This was due to frequent contact, pharmacies' opening hours, anonymity, lack of appointments, and (generally) positive rapport between WOST and CPs. However, it appeared that sexual health was rarely discussed. The development of a pharmacy-based sexual health service could then be an opportunity to improve the sexual health and access to care for WOST.

"I think it would be more helpful cause it's somewhere that they would be going to go and pick up their prescriptions and so it [sexual health service] would be there." (Emmeline, 35 years old; WOST).

Most CPs believed that, overall, they were well-prepared to deliver sexual health services to WOST and that community pharmacy was an appropriate setting for these services. They considered that with the appropriate training other pharmacy staff (i.e., technicians, dispensers and counter assistants) could be part of providing the service. The role of each professional would depend on the components of the service, and the knowledge and skills required to deliver it.

There were several ideas for developing a sexual health service for WOST in community pharmacy. Suggestions for the components of the service included short consultations, condom supply, sexual health screening and STI/BBV treatment. Working together with other pharmacy staff, and liaising with other health and social care professionals would be essential, according to most participants. They also mentioned how referrals to appropriate professionals would need to be made available when appropriate (e.g., to start anti-retroviral therapy for HIV). This would not only include referrals for health-related issues but also safeguarding concerns (e.g., gender-based violence). In pharmacies with more resources and capacity, a walk-in sexual health clinic could be organized to exclusively deliver this service.

"If it was a sort of health assessment that would be easier to do with your daily methadone pick-ups because you could, have multiple attempts to sell them the idea." (Matthew, 51 years old; CP; focus group).

Potential challenges to overcome

Based on the participants' narratives, we identified several challenges for promoting sexual health among WOST in community pharmacy. These were: 1) intersectional stigma and discrimination; 2) trust and humanity; 3) lack of privacy and time constraints; and 4) financial limitations.

Intersectional stigma and discrimination: beyond drug use

Intersectional stigma refers to a qualitatively unique experience of stigma that results from the overlap of interdependent stigmatized identities (22). In the case of WOST and in relation to a recent paper

(23), experiences of intersectional stigma were associated with the female gender, drug use, transactional sex, homelessness and sexual health status. Women's narratives also highlighted how OST (and especially methadone) was stigmatized because of its association with drug use.

"It sort of it's like everyone knows about methadone and I think that it… if I went with that I would think that I would be judged more." (Marion, 37 years old; WOST).

Women's narratives indicated a relationship between experiencing stigma and a lack of access and engagement with healthcare services. They expressed how they had, at some point, felt stigmatized and discriminated against in community pharmacies. This was either by CPs, other pharmacy staff or other pharmacy clients. Facing situations of stigmatization and discrimination left WOST feeling ashamed, helpless and reluctant to access services in community pharmacy.

"[I was] just treated badly because you know, I was on methadone prescription, so… you know, it takes, it kind of makes you want not to engage with any of them." (Lily, 36 years old; WOST).

It was relatively common that CPs dichotomized clients into "not normal" (WOST) and "normal" (any other pharmacy clients). CPs sometimes seemed to be unaware of their own stigmatizing attitudes towards OST clients. Other times participants were aware of their own attitudes and tried to amend them explicitly (*"well I should not say normal"*). Some CPs referred to OST clients using stigmatizing and dehumanizing terms such as: "these people", "addicts", "blue scripts" – OST clients have a blue script rather than green in the UK –, or "drunks". Also, a few CPs viewed PWUD as "a public health and public safety issue" for the general population. Working on BBV prevention with OST clients was even perceived as a risk for pharmacists to contract HIV. This displays the idea of PWUD as carriers of disease (and especially HIV), which is another example of stigmatizing views and attitudes that some pharmacists may hold. Some CPs recognized that the stigma towards PWUD was a barrier for health promotion and engaging WOST in health services.

"I think one barrier that you probably won't be able to overcome easily is the negative judgmental attitudes towards OST." (Olivia, 27 years old; CP; focus group).

We identified cultural difference in how CPs viewed drug use and OST. Also, there appears to be a link between culture and stigmatizing attitudes towards PWUD and thus OST clients. This may have an impact on the quality of care and interactions between CPs and WOST.

"When I came here [UK] it was a bit awkward. Because I couldn't understand how the government can give to those people [OST clients] drugs [OST]." (Susan, 35 years old; CP; interview).

Trust and humanity: building positive rapport and good communication

Except for one participant, all WOST felt comfortable in their current community pharmacy and with the rapport and interactions that they had with their CPs. Some participants explained the positive role

that their CPs had had in their progression towards recovery from drug use. Women felt that some CPs cared for them as they had helped them in the past with their OST and other personal matters. Building a relationship of trust was important for WOST to feel comfortable in their community pharmacy and to be willing to engage in pharmacy services.

"He'd [CP] sometimes ask if there are any problems, especially when I went through that stuff [intimate partner violence] when he [ex-partner] beat me up and that, cause he [CP] was seeing me every day so he [CP] was obviously seeing things (…)." (Sylvia, 27 years old; WOST).

At the same time, WOST perceived that pharmacists and other professionals had a limited understanding and misconceptions about their life experiences and the context of drug use. There seemed to be a gap in the realities of WOST and CPs that was difficult to bridge, as pharmacists appeared to view drug use as an individual-level phenomena. This maintained and strengthened feelings of isolation and helplessness among WOST, and could hinder good communication and building trust and positive rapport between WOST and CPs.

CPs thought most interactions with WOST as being positive, which diverges from WOST's experiences of intersectional stigma. Some emphasized the importance of having a positive rapport with WOST and called for a humane treatment of WOST. Working with WOST was however seen as challenging. CPs experienced it as rewarding when WOST progressed in their treatment, but as frustrating when they were either not progressing or relapsing back to drug use. Involvement of OST clients in thefts or arguments damaged the rapport and hindered good communication and understanding between clients and pharmacists. It was explained that these incidents could sometimes make CPs resentful and could create an environment of distrust. When such incidents were repeated, CPs suspended the OST and transferred clients to another community pharmacy. They were perceived to be a barrier to engage WOST in pharmacy services, and limited CPs willingness to deliver services to WOST.

"I'm firm with them and I threaten them and I say […] I will ring up and cancel the script and you can go elsewhere and that" (Martha, 57 years old; CP; interview)

Lack of privacy and time constraints: providing a space and time to share

Even though all community pharmacies had a private consultation room, time constraints were significant barriers for having private consultations. This lack of privacy in pharmacy seemed to exacerbate experiences of stigma and discrimination. Women felt ashamed to be identified as a PWUD when they were picking up their medication in community pharmacy, especially if by someone they knew.

"It's kind of quite embarrassing, you know, because you don't really want people to know that you've been a drug addict you know". (Lily, 36 years old; WOST).

Time constraints were identified as main barriers to deliver health promotion services in community pharmacy. WOST also mentioned that they were less likely to express health-related concerns and engage in services with CPs having short time for consultations. According to CPs, delivering additional services (e.g., a new sexual health service) within current resources would be highly restricted by time and workload pressures.

"(…) but you haven't really got the time to sit in the consulting room with them and then you face a pile of prescriptions to come back to, that is unfortunately how it is" (Martha, 57 years old; CP; interview).

Financial limitations: community pharmacy as a business

CPs explained that public health services were commissioned, usually directly by the NHS or through Clinical Commissioning Groups[17] or local authorities. Several CPs highlighted that community pharmacies are businesses and that the services they provide need to translate into financial gains. Some CPs feared losing clients if they had a high volume of OST clients, therefore losing pharmacy income.

"Even though we want to help them, we can't offer them anything free unless we are commissioned by the commissioning body" (Peter, 25 years old; CP; interview).

Financial constraints were not identified by WOST as they may not have been aware of the business and financial side of community pharmacy.

Discussion

Community pharmacists have been identified to have a key role in promoting health (16-18). Our findings suggest that there are opportunities for CPs to get involved in delivering sexual health services for WOST. There were several suggestions for the components of a pharmacy-based sexual health service: having short consultations, condom supply, sexual health screening, and STI/BBV treatment. Proactively advertising and providing these services in private would be key to engage WOST. Working with other professionals, including other pharmacy staff, would be necessary. Specific training for all pharmacy staff would be fundamental, especially to equip pharmacists with the necessary skills to initiate a discussion on sexual health and be able to deal with sensitive topics. Drug services' staff and GPs may need to be involved in engaging WOST in the service, and communicate effectively with CPs to provide holistic, quality and person-centred care.

[17] Clinically-led statutory NHS bodies responsible for the planning and commissioning of health care services for their local area.

There are important barriers at the social and structural level that need to be considered and addressed. These seemed somehow to challenge the positive views towards having pharmacy-based sexual health services for WOST. Abandoning individual-level approaches and taking a social ecological perspective to address these challenges at other levels (i.e., social and structural) is then essential (24).

Even though most interactions between WOST and CPs were deemed to be positive, women still felt stigmatized and discriminated by pharmacy staff (including CPs) and other clients. This is an important barrier to accessing pharmacy services, especially for vulnerable and marginalized populations such as WOST. We suspect that experiences of stigma and discrimination may have been under-reported by women. Despite the efforts of providing a safe space for WOST to share their experiences, data collection took place mostly within drug services that they attend on a regular basis. There is the possibility that some participants may have felt cautious to share their experiences of community pharmacy. Stigmatizing attitudes seemed to be embedded within most CPs, and some were unaware of their own attitudes towards WOST. As health professionals, most pharmacists were mindful of the need to deliver non-judgmental and patient-centred consultations. However, this was not always applied in practice. The way some pharmacists talked about WOST showed how ingrained stigma towards PWUD is (23, 25-28). The fact that CPs may not even be aware of their own stigmatizing attitudes may increase the complexity of stigma reduction strategies for community pharmacy. Also, CPs taking part in this study could potentially hold less negative views on OST clients, compared to other pharmacists who were not interested in participating. However, we did not interview other pharmacy staff (e.g., counter assistants) and these other professionals also interact daily with WOST. Future research could explore their views and attitudes towards WOST in order to provide a more holistic picture of stigma and discrimination in community pharmacy. Strategies to reduce stigma in community pharmacy should be a priority to deliver health services to WOST effectively. These could include training programs for pharmacy staff, patient-centred approaches for health services (that are applied in practice), new and/or improved policies considering and addressing stigma, rights-based policy approaches (29).

The “blame culture” towards PWUD prevails. Drug use is commonly attributed to individual factors (e.g., personality) rather than socio-structural factors (e.g., poverty). It would be expected that health professionals working with PWUD (e.g., pharmacists working with WOST) would be familiar with the multidimensionality and complexity of drug use. Interestingly, this was not what we encountered in our research. A few pharmacists still viewed drug use and healthcare from a reductionist and biomedical perspective, which calls for a review of pharmacists’ training (30). These misconceptions about the realities of WOST may limit their access to healthcare and contribute to maintaining health inequities among this group. It is then essential to consider stigma and discrimination as main barriers to health and access to healthcare. But it is also vital to take social ecological perspectives to public

health. This will allow us to address social-structural determinants of health, to improve health, protect the human and health rights of WOST, and reduce social and health inequities.

Trust is key to delivering of pharmacy services (31-32), particularly among vulnerable and marginalized populations such as WOST. Our findings suggested that building a trusting relationship would enhance access to sexual health services among WOST. Building positive rapport would encourage women to express their concerns and overcome reluctance to discuss their sexual health. It may also have a significant role in promoting effective communication, and reducing perceived and enacted stigma. It is also essential that human and health rights are protected by treating WOST humanely, and reducing stigma and discrimination (33-36).

Other barriers to providing sexual health services alongside OST were the pragmatic considerations of lack of privacy and time. The lack of time may have a negative impact on effective communication and limit the proactive promotion and provision of sexual health services. This could restrict the access to healthcare and thus be another factor that maintains health inequities for WOST. We therefore need to be careful that appropriate time and spaces are provided for delivering sexual health services. This may have implications on the funding needed for sexual health services, to ensure that community pharmacies have the necessary resources to implement these services. This links with another of the challenges identified: the need for funding. Commissioning sexual health services would be essential for implementing the services as community pharmacies cannot fund these services themselves.

Funding

This study was part of a PhD scholarship granted to LMP by the University of [insert university name].

Conflict of interests

The authors declare no conflict of interest.

Key points

- There are important opportunities to expand available public health services in community pharmacy to promote sexual health among WOST.
- There are opportunities to improve how pharmacy services are being delivered.
- Barriers need to be considered when developing and implementing public health services in community pharmacy.

- Policies need to be improved to protect the health of WOST and other drug-using populations.
- Improving access to healthcare services and protecting human and health rights of WOST should be at the core of public health services

Acknowledgments

The authors would like to thank all participants for their invaluable contributions to this study.

References

1. Des Jarlais DC, Arasteh K, McKnight C, Hagan H, Perlman DC, Semaan S. Associations Between Herpes Simplex Virus Type 2 and HCV With HIV Among Injecting Drug Users in New York City: The Current Importance of Sexual Transmission of HIV. American journal of public health. 2011;101(7):1277-83.

2. Guimaraes RA, Monteiro LH, Teles SA, Fernandes IL, Rodovalho AG, Silva GC, et al. Risk behaviors for sexually transmitted infections in noninjecting drug users: A cross-sectional study. International journal of STD & AIDS. 2018;29(7):658-64.

3. Hwang LY, Zack C, Rickman K, Holleman M. Prevalence of sexually transmitted infections and associated risk factors among populations of drug abusers. Clinical Infectious Diseases. 2000;31(4):920-6.

4. Public Health England. Shooting Up: Infections among people who inject drugs in the UK, 2016. An update, November 2017. London Public Health England, 2017.

5. UNAIDS. On the Fast-Track to end AIDS: 2016-2021 Strategy. Geneva: UNAIDS, 2015.

6. UNAIDS. HIV prevention among adolescent girls and young women. Putting HIV prevention among adolescent girls and young women on the Fast-Track and engaging men and boys. Geneva: UNAIDS, 2016.

7. World Health Organization. Combating Hepatitis B and C to reach elimination by 2030. Advocacy brief. Geneva: World Health Organization, 2016.

8. World Health Organization. Global Health Sectors Strategy on Viral Hepatitis, 2016-2021. Towards ending viral hepatitis. Geneva: World Health Organization, 2016.

9. World Health Organization. Global Health Sector Strategy on HIV, 2016-2021. Towards ending AIDS. Geneva: World Health Organization, 2016.

10. World Health Organization. Global Health Sector Strategy on Sexually Transmitted Infections, 2016-2021. Towards Ending STIs. Geneva: World Health Organization, 2016.

11. Khan M, Berger A, Hemberg J, O'Neill A, Dyer TP, Smyrk K. Non-injection and Injection Drug Use and STI/HIV Risk in the United States: The Degree to which Sexual Risk Behaviors versus Sex with an STI-Infected Partner Account for Infection Transmission among Drug Users. AIDS and behavior. 2013;17(3):1185-94.

12. Kral AH, Bluthenthal RN, Lorvick J, Gee L, Bacchetti P, Edlin BR. Sexual transmission of HIV-1 among injection drug users in San Francisco, USA: risk-factor analysis. The Lancet. 2001;357(9266):1397-401.

13. Liu H, Li J, Li J. Roles of mixing of drug-use network and sexual network on heterosexual transmission of HIV among Young drug users: an egocentric network study in Yunnan, China. International Journal of Infectious Diseases. 2012;16(1):e186.

14. Strathdee SA. Sexual HIV transmission in the context of injection drug use: implications for interventions. International Journal of Drug Policy. 2003;14(1):79-81.

15. Medina-Perucha L, Family H, Scott J, Chapman S, Dack C. Factors associated with sexual risks and risk of STIs, HIV and other blood-borne viruses among women using heroin and other drugs: A systematic literature review. AIDS and Behavior. 2018.

16. Public Health England. Pharmacy: A way forward for public health. Opportunities for action through pharmacy for public health. London: Public Health England, 2017.

17. Eades CE, Ferguson JS, O'Carroll RE. Public health in community pharmacy: a systematic review of pharmacist and consumer views. BMC public health. 2011;11:582.

18. Watson T, Hughes C. Pharmacists and harm reduction: A review of current practices and attitudes. Canadian Pharmacists Journal. 2012;145(3):124-7.

19. Muhib FB, Lin LS, Stueve A, Miller RL, Ford WL, Johnson WD, et al. A venue-based method for sampling hard-to-reach populations. Public Health Reports. 2001;116:216-22.

20. Ritchie J, Spencer L. Qualitative Data Analysis for Applied Policy Research. 1994.

21. Wilkinson S. Focus groups. In: Smith JA, editor. Qualitative Psychology: A practical guide to research methods. 3rd ed. London: Sage; 2015.

22. Crenshaw K. Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrmiation Doctrine, Feminist Theory and Antiracist Politics. University of Chicago Legal Forum. 1989;1989(8).

23. Medina-Perucha L, Scott J, Chapman S, Barnett J, Dack C, Family H. A qualitative study on intersectional stigma and sexual health among women on opioid substitution treatment in England: Implications for research, policy and practice. Social Science & Medicine. 2019; 222: 315-322.

24. McLeroy KR, Bibeau D, Steckler A, Glanz K. An ecological perspective on health promotion programs. Health Education & Behavior. 1988;15(4):351-77.

25. Earnshaw V, Smith L, Copenhaver M. Drug Addiction Stigma in the Context of Methadone Maintenance Therapy: An Investigation into Understudied Sources of Stigma. International journal of mental health and addiction. 2013;11(1):110-22.

26. Earnshaw VA, Smith LR, Cunningham CO, Copenhaver MM. Intersectionality of internalized HIV stigma and internalized substance use stigma: Implications for depressive symptoms. Journal of health psychology. 2015;20(8):1083-9.

27. Luoma JB, Twohig MP, Waltz T, Hayes SC, Roget N, Padilla M, et al. An investigation of stigma in individuals receiving treatment for substance abuse. Addictive behaviors. 2007;32(7):133146.

28. Lloyd C. The stigmatization of problem drug users: A narrative literature review. Drugs: Education, Prevention and Policy. 2013;20(2):85-95.

29. Heijnders M, Van Der Meij S. The fight against stigma: an overview of stigma-reduction strategies and interventions. Psychology, health & medicine. 2006;11(3):353-63.

30. Lupton D. Foucault and the medicalisation critique. In: Petersen A, Bunton R, editors. Foucault, health and medicine. London: Routledge; 1997. p. 94-110.

31. Gidman W, Ward P, McGregor L. Understanding public trust in services provided by community pharmacists relative to those provided by general practitioners: a qualitative study. BMJ open. 2012;2(3).

32. Gilson L. Trust and the development of health care as a social institution. Social science & medicine. 2003;56(7):1453-68.

33. Krieger N. Discrimination and health inequities. International journal of health services: planning, administration, evaluation. 2014;44(4):643-710.

34. Braveman P, Gruskin S. Poverty, equity, human rights and health. Bulletin of the World Health Organization. 2003;81(7):539-45.

35. Braveman P, Gruskin S. Defining equity in health. Journal of epidemiology and community health. 2003;57(4):254-8.

36. Gruskin S, Dickens B. Human Rights and Ethics in Public Health. American journal of public health. 2006;96(11):1903-5.

Tables

Table 1

Demographics, drug use, opioid substitution treatment and sexual health-related data of women on opioid substitution treatment taking part in the interviews.

Participant characteristics (N=20)	n (%)
Age	*M*=39.50 (*SD*=9.65)
Ethnicity	
English/Welsh/Scottish/Northern Irish/British	18 (90)
White European	1 (5)
Black African	1 (5)
Primary language	
English	20 (100)
Education	
No academic qualifications	8 (40)
0 Level/Scottish Higher or equivalent (NVQ/SVQ Level 2)	7 (35)
A Level/Scottish Higher or equivalent (NVQ/SVQ Level 3)	3 (15)
First degree	2 (10)
Homelessness	
Current	3 (15)
Lifetime	3 (15)
Employment status	
Unemployed	16 (80)
Annual income (N=19)	
£ 0-4,999	9 (45)
£ 5,000-9,999	7 (35)
£ 10,000-14,999	3 (15)
Current drug use	
Tobacco	20 (100)
Heroin	18 (90)
Alcohol	17 (85)
Methadone (prescribed and non-prescribed)	17 (85)
Crack cocaine	15 (75)
Cannabis	15 (75)
Benzodiacepines	15 (75)

Codeine	13 (65)
Opioid substitution treatment	
Methadone	17 (70)
Buprenorphine	5 (25)
Suboxone	1 (5)
Sexual partners	
Men only	14 (70)
Women and men	5 (25)
Women only	1 (5)
Transactional sex (lifetime)	8 (40)
Sexual abuse (N=19)	17 (89.5)
Sexual health	
STI/BBV preventive methods	
No sex	11 (55)
None	5 (25)
Male condom use	4 (20)
STI/BBV screening (at least once) (N=18)	17 (94.4)
STI/BBV diagnoses	
Hepatitis C	7 (35)
Chlamydia	4 (20)
Genital warts	2 (10)
Pubic lice	2 (10)
Scabies	2 (10)
Gonorrhoea	1 (5)
Human Papillomavirus	1 (5)

Table 2

Demographics and job characteristics of community pharmacists taking part in the interviews.

Sample Characteristics (N=14)	**n (%)**
Age	*M*=36 (*SD*=9.46)
Sex	
Female	7 (50)
Male	7 (50)
Ethnicity	

English/Welsh/Scottish/Northern Irish/British	5 (35.7)
White European	4 (28.6)
White non-European	1 (7.1)
Indian	1 (7.1)
Chinese	2 (14.3)
Other	1 (7.1)
Primary language	
English	7 (50)
Non-English	7 (50)
Education	
First degree	7 (50)
Postgraduate certificate of education (PGCE)	1 (7.1)
Other postgraduate qualification (including professional)	5 (35.7)
Doctorate	1 (7.1)
Employment status	
Work ≥ 16 hours /week	9 (64.3)
Work < 16 hours/week	1 (7.1)
Self-employed	4 (28.6)
Job title	
Superintendent pharmacist	2 (14.3)
Pharmacy manager	6 (42.9)
Responsible pharmacist	3 (21.4)
Pharmacist	1 (7.1)
Independent prescribing pharmacist	2 (14.3)
Time being a pharmacist (in months)	*M*=145.64 (*SD*=124.69) (12.14 years)
Responsible for OST	14 (100)
Time being a pharmacist responsible for opioid substitution treatment (in months) (n=13)	*M*=71.69 (*SD*=69.68) (5.97 years)

Table 3

Demographics and job characteristics of community pharmacists taking part in the focus group.

Sample Characteristics (N=3)	n (%)
Age	*M*=35.67 (*SD*=13.32)
Sex	
Female	2 (66.7)
Male	1 (33.3)
Ethnicity	
English/Welsh/Scottish/Northern Irish/British	2 (66.7)
Indian	1 (33.3)
Primary language	
English	3 (100)
Education	
First degree	3 (100)
Employment status	
Work ≥ 16 hours /week	3 (100)
Job title	
Superintendent pharmacist	1 (33.3)
Pharmacy manager	1 (33.3)
Other	1 (33.3)
Time being a pharmacist (in months)	*M*=144.67 (*SD*=166.21) (12.05 years)
Responsible for OST	3 (100)
Time being a pharmacist responsible for opioid substitution treatment (in months) (n=2)	*M*=24 (*SD*=16.97) (2 years)

7.3. Commentary

The publication in this chapter combined data from WOST and CPs in relation to developing a sexual health service in community pharmacy for WOST. The data and analyses presented in this paper are an important part of this thesis. They illustrate the gaps between the views and needs of WOST and CPs. Also, the opportunities to work together with both groups into developing a service that fits both service users and service providers. It was clear through the narratives of both groups that this would be a challenging undertaking due to the barriers identified by participants in this study. A deeper exploration into the barriers and facilitators may aid future work to design the sexual health service. As discussed in the publication, CPs were perceived by both groups of participants as having a role in promoting sexual health among WOST. At the same time, there were important aspects to consider in the interactions between WOST and CPs. Focusing the attention on social and structural factors was also key. The conclusions extracted in this publication were based on the previous chapters and data presented in this PhD thesis. They were also key points that were considered for the second stage of the service development in Chapter 8 and the overall discussion of this PhD in Chapter 9.

7.4. Statement of authorship

The research and preparation of this publication were led by the main author of the manuscript and this thesis. Dr Jenny Scott, Dr Charlotte Dack, Dr Hannah Family, Dr Sarah Chapman and Prof Julie Barnett were the supervisors and co-authors of this research and publication. They all gave feedback and support in planning the research, collecting and analysing data, and writing this publication.

7.5. Permissions

Permissions were obtained from Springer Nature to include the manuscript in this PhD thesis (see Appendix 29) on 20th November 2018.

7.6. Data access statement

Data linked to this publication are available upon request to the main author of the manuscript and this PhD thesis.

CHAPTER 8. Service Design: Developing a Sexual Health Service for Women on Opioid Substitution Treatment in Community Pharmacy

This chapter includes the steps for the development of a sexual health service for WOST in community pharmacy, to prevent STIs and BBVs. As introduced in Chapter 2, this study followed the IM approach (see page 16). This chapter corresponds to the last task of Step 1 (stating the goals of the service) and Step 2 of IM (identifying the service outcomes and objectives). This chapter is based on and builds upon the work presented in previous chapters. Chapter 8 is moving on from the data already presented in Chapters 3-6 to provide suggestions on how could these data be used to develop pharmacy-based services that address the sexual health needs of WOST.

8.1. Stating the Goals of the Service

The main goals of the sexual health service were based on the findings from this PhD research (see Chapters 3-6) which were synthesised in the Logic Model of the Problem in Chapter 6 (Figure 9, page 151). Despite the crucial importance of increasing the use of female and male condoms among WOST, data from this study suggested that this may not be feasible in community pharmacy. This was due to the barriers and capacity of community pharmacy and CPs to deliver sexual health services for WOST (see Chapters 4-7). Interventions at multiple ecological levels may be needed in order to address sexual health risks among WOST (Dahlgren & Whitehead, 1991; McLeroy et al., 1988). This is further discussed in Chapter 9. Participants' narratives suggested that increasing the availability and uptake of sexual health services would be attainable. The goals of this service were therefore focused on secondary rather than primary prevention. The service goals for the sexual health service were:

1. To promote the uptake of sexual health services[18] among WOST.
2. To increase the engagement of CPs in delivering sexual health services to WOST.

Attaining these goals could reduce STI/BBV rates, associated health problems (e.g., infertility, cancer, AIDS) and STI/BBV-related mortality. Most importantly, it could help reduce health inequities among WOST and improve their QoL.

8.2. Stating Service Outcomes

Individual-level and socio-structural outcomes were defined, based on the data presented in Chapters 3-6, especially the Logic Model of Change (see Figure 9, page 151). As explained in Chapter 2 (see page 40), these outcomes were the actions and conditions required to attain the goals of

[18] Sexual health services include screening, treatment and counselling for STIs and BBVs, sessions and counselling on STI/BBV prevention, vaccinations for viral hepatitis, services for sexual violence, and other.

the service. The outcomes are stated below and were selected from a more extensive list of potential outcomes. Decisions on the final outcomes were based on what participants prioritised and thought to be most acceptable and feasible. Previous research also informed these decisions. Some outcomes could not be included within the scope of this service (e.g., develop new policies for sexual health education), or could not be addressed successfully in community pharmacy (e.g., increase the use of male and female condoms among WOST). As already discussed in Chapter 5 and 7, there were important perceived barriers for implementing sexual health services for WOST in community pharmacy. These were particularly considered to select the service outcomes. Overall, the outcomes of the service were those to promote the availability and uptake of sexual health services in community pharmacy to decrease the burden of disease.

Through the implementation of this service, change was expected mainly from WOST and CPs. However, other health professionals could also have a role in promoting sexual health among WOST (e.g., social workers or GPs in case of referrals from CPs). Details on the role of each professional would be detailed in subsequent stages of the service design that are not part of this PhD research (see pages 196 and 237).

8.2.1. Individual-level Outcomes

Outcomes at the individual level were the behaviours that WOST would be expected to perform and accomplish as a result of the sexual health service:

1. Access and engage in sexual health services: sexual health screening, initiation and adherence to treatment for STI/BBV, sexual health advice and counselling, and free supply of barrier methods (male condom, female condom).

8.2.2. Socio-structural level Outcomes

Socio-structural outcomes that could be included in the intervention were identified at the interpersonal and organisational level. Outcomes at the community level (e.g., to develop community interventions to address GBV) and societal levels (e.g., changes in the educational system) were identified but were not within the scope of this service.

8.2.2.1. Interpersonal-level outcomes

Interpersonal-level outcomes relate to one-to-one interactions between WOST and other individuals in their interpersonal environment (e.g., family, health professionals). Interpersonal-level outcomes may include processes of social influence and interpersonal elements of social capital, such as building trust (Abbott & Freeth, 2008; Bartholomew Eldredge et al., 2016; Eriksson, 2011; Reblin & Uchino, 2008). In the context of this PhD research and service development, it was within the

scope to consider the interactions between service users (i.e., WOST) and service providers (i.e., CPs). The outcomes presented below would need to be performed by CPs:

2. Actively address stigma towards WOST in community pharmacy.
3. Actively identify situations of GBV among WOST and make appropriate referrals.

8.2.2.2. Organisational-level outcomes

Outcomes at the organisational level are norms, policies, practice and facilities (Bartholomew Eldredge et al., 2016; Schulz & Northridge, 2004). Organisational-level outcomes in the development of this service were associated with health and social services for WOST, related to the service goals. These outcomes would need to be performed by CPs:

4. Actively provide information and guidance on sexual health to WOST.
5. Actively deliver free supplies of barrier methods (male and female condoms), STI/BBV screening, STI/BBV treatment and counselling, and appropriate referrals to other professionals and health/social services.

8.3. Specifying Performance Objectives

Performance objectives are sub-components of the outcomes outlined in the previous section, as they provide specific details about how to achieve these outcomes (Bartholomew Eldredge et al., 2016). Performance objectives need to be realistic and practical in terms of the priority group (i.e., WOST). For instance, making and maintaining an appointment might be a great challenge for WOST. These practicalities were considered when selecting performance objectives. The performance objectives are presented in Table 13 below and are mapped with individual-level and socio-structural level outcomes. Some outcomes were divided to match them with the performance objectives.

Table 13

Individual-level and socio-structural level outcomes, and related performance objectives.

Individual-level outcomes	**Associated Performance Objectives**
WOST will:	
IO.1. Obtain free barrier methods (male and female condoms) by accessing pharmacy-based sexual health services	PO.1. Decide to obtain free barrier methods PO.2. Communicate with CPs about interest in obtaining free barrier methods PO.3. Engage in pharmacy services to obtain barrier methods

IO.2. Screen for STIs and BBVs	PO.1. Decide to get screened for STI/BBVs PO.2. Communicate with CPs about interest in STI/BBV screening and sexual health concerns PO.3. Screen for STIs and BBVs PO.4. Obtain STI/BBV screening results
IO.3. Uptake treatment for STIs and BBVs, if positive result	PO.1. Decide to get treatment PO.2. Communicate with CPs about treatment PO.3. Initiate and complete/undertake course of treatment
Socio-structural level outcomes ***CPs will:***	**Associated Performance Objectives**
SSO.1. Actively address stigma towards WOST in community pharmacy	PO.1. Decide to actively address stigma towards WOST in their community pharmacy PO.2. Address stigma towards WOST in their community pharmacy
SSO.2. Actively identify situations of GBV among WOST and make appropriate referrals	PO.1. Undertake training in GBV PO.2. Decide to identify GBV among WOST PO.3. Identify situations of GBV among WOST PO.4. Decide to have a discussion around GBV with WOST (if situation of GBV identified) PO.5. Prepare discussion around GBV (if situation of GBV identified) PO.6. Initiate discussion around GBV (if situation of GBV identified) PO.7. Have discussion around GBV with WOST (if situation of GBV identified) PO.8. Decide to make appropriate referrals when identifying situations of GBV PO.9. Make appropriate and timely referrals
SSO.3. Actively provide information and guidance for sexual health to WOST	PO.1. Decide to have discussion around sexual health PO.2. Prepare discussion around sexual health

	PO.3. Initiate a discussion on sexual health PO.4. Have discussion on sexual health PO.5. Answer WOST's questions or concerns
SSO.4. Actively offer free male *and* female condoms to WOST	PO.1. Provide information around sexual health (SSO.3.) PO.2. Offer and provide free male *and* female condoms PO. 3. Answer WOST's questions or concerns
SSO.5. Actively deliver free STI/BBV screening, STI/BBV treatment and guidance, and/or appropriate referrals to other professionals/services	PO.1. Provide information around sexual health (SSO.3.) and STI/BBV screening PO.2. Offer and provide WOST free STI/BBV screening PO.3. Provide STI/BBV screening PO.4. Send samples to laboratory for testing PO.5. Notify WOST of results in a private space within the pharmacy PO.6. If positive results, discuss treatment options PO.7. If positive results, initiate treatment/refer to appropriate professionals/services to initiate treatment PO.8. Answer WOST's questions or concerns

Note. IO = individual-level outcome; SSO = socio-structural level outcome; PO = performance objective.

8.4. Selecting Determinants of Health

The next step of service design was selecting the determinants of health that were relevant to the development of the sexual health service for WOST, and in the context of community pharmacy. These were associated with individual-level behaviour and with the socio-structural changes required. A preliminary list containing 15 determinants of health was developed (see Table 14). Determinants of health were selected based on data generated in this PhD study and previous evidence. This list includes ratings on the importance and potential changeability of each determinant which were used to select those determinants most relevant for the service. As presented in Table 14, addressing most determinants was perceived to be important in order attain the outcomes of the service. At the same time, most were not rated as easily changeable. Decisions on the inclusion and exclusion of determinants to be addressed were mainly based on what was considered within the scope of this service (i.e., in relation to the goals of the service and what was potentially feasible). These decisions

were based on data from this research (Chapters 3-6) and ratings of importance and changeability. See Table 14 for the list of determinants and explanations for the inclusion and exclusion of each determinant.

There were eight determinants of health selected. Of these, there were four that were paired as they were closely associated with each other (beliefs and knowledge; skills and self-efficacy). There were then six determinants included at the last stage: 1) perceived barriers; 2) attitudes (including stigma); 3) habits; 4) risk awareness; 5) beliefs and knowledge; and 6) skills and self-efficacy. Four of these determinants were relevant to both individual-level and socio-structural level outcomes: attitudes; habits; beliefs and knowledge; and skills and self-efficacy. 'Perceived barriers' was only relevant to socio-structural level outcomes and 'risk awareness' for individual-level outcomes. See Table 14 for more details.

8.5. Matrices of Change Objectives

Creating the Matrices of Change Objectives was the next step for service design. The purpose of these matrices were to identify change objectives. These were measurable changes that one would expect to see if the intervention was meeting the service goals. These matrices were constructed by mapping performance objectives and determinants of health. These were important to specify so that they could be measured for service evaluation (Step 6 of IM). The change objectives were included in the matrices' cells. See Tables 15 to 22 for the Matrices of Change Objectives.

8.6. The Logic Model of Change

The last stage of service design of Step II consisted of the development of a The Logic Model of Change, a conceptual model that illustrates the pathways of change that lead to attaining the service goals and influence health outcomes and quality of life (see Figure 10, page 215). As already mentioned, this model was developed based on the previous stages of service design. It includes the relationships between the change objectives, performance objectives, service outcomes, health outcomes and quality of life (see page 42).

8.7. Next Steps for Service Design

In terms of service design, this PhD research provided suggestions for the outcomes and goals of a pharmacy-based sexual health service to address the sexual health needs of WOST. Also, it set a pathway of individual-level and socio-structural elements that would need to be changed in order to attain these goals. Based on the IM approach (Bartholomew Eldredge et al., 2016), the next steps for service design would be to:

1. Select theory- and evidence- based change methods, and generate practical applications and details of how to deliver these change methods (Step III).
2. Refine the structure and organisation of the service, devise and pre-test materials (Step IV).
3. Design the implementation and implement the service (Step V).
4. Design and evaluation plan and evaluate the implementation of the service (Step VI).

This PhD research run alongside another project aiming to develop a reproductive health service in community pharmacy for the same group of women. Ideas for grant applications are currently being generated in order to bring the findings of both studies together. Findings from this PhD will then inform the design, implementation and evaluation of a pharmacy-based service that addresses both sexual and reproductive health among WOST.

Table 14

List of determinants of health, including ratings of importance and changeability, agents of change and inclusion/exclusion of determinants.

	Determinant	Importance	Changeability	Agent(s) of change	Inclusion (Y/N)	Justification for inclusion/exclusion
1	Social norms and social roles *Social norms: collective representations of how individuals and particular social groups should behave* *Social roles: collective expectations of certain individuals, in terms of their rights, responsibilities and behaviours*	+++	+	WOST, CPs	N	Social norms relevant to this research were mainly social norms of how WOST and CPs are expected to behave. These were, for instance, associated with WOST's gender. Other social norms were related to sex and sexual health as taboo topics. Social roles relevant to this research are consonant with these same social norms. For example, in relation to the expected responsibilities of being a CPs. Despite the importance of changing social norms and roles, these were not considered to be the most changeable determinants. Even though the pharmacy-based service could focus on changing social norms and roles at the interpersonal level, there is the need for interventions at multiple ecological levels to attain changes in social norms and roles. These determinants were then excluded as, to attain the most impact, their inclusion should also require for a broader intervention that includes different settings (e.g., schools) and at the community and societal level.
2	Self-concept and social identity *Self-concept: the beliefs that someone holds about oneself* *Social identity: the beliefs that someone holds about oneself, in relation to their memberships to social groups*	+++	+	WOST	N	Similarly to social norms and social roles, self-concept and social identity were out of the scope of this service. An intervention at multiple ecological levels may also be required to attain changes in these determinants. Addressing self-concept and social identity may be needed to involve other professionals and other settings for the service (e.g., drug services). Self-concept and social identity could however be indirectly and partly addressed through addressing other determinants such as stigma (attitudes).
3	Sense of control and empowerment *Sense of control: Perception that one has the control over oneself and the one around her* *Empowerment: autonomy and self-determination among people and social groups*	+++	+	WOST	N	Sense of control and empowerment were out of the scope of this service. Based on the data from this study, these were important but not considered to be easily changeable. Interventions at multiple ecological levels may be required to attain change in WOST' sense of control and empowerment. For instance, it would be essential to involve other professionals and include other settings for the service (e.g., drug service). Sense of control and empowerment could however be indirectly and partly addressed through addressing other determinants such as stigma (attitudes), habits and self-efficacy.
4	Perceived barriers	+++	+	WOST, CPs	Y (for CPs)	*WOST:* Perceived barriers to access sexual health services (e.g., fear of stigma) were important to be addressed by the service. These could however be addressed through other determinants such as attitudes (stigma) or self-

	Emotional (e.g., discomfort discussing sexual health) and structural (e.g., time constraints) perceived obstacles					efficacy, and through addressing some barriers among CPs (e.g., discomfort initiating a conversation on sexual health). Other barriers (e.g., worthlessness and disempowerment) were not within the scope of the service, or could not be changed by WOST (e.g., time constraints in health care services) thus were not included either. *CPs:* Perceived barriers among CPs were important to be addressed too. Based on the data from this study, some of these barriers could be addressed in this service (e.g., lack of time). As already mentioned, addressing perceived barriers among CPs was also targeted as a means to reduce barriers among WOST. Addressing other system and structural barriers (e.g., change educational system) was out of the scope of this service. This would require for an intervention at multiple ecological levels that include changes in policy, organisational and societal levels.
5	Attitudes (including stigma) *A way of thinking or feeling about something, someone or a collective*	+++	+	WOST, CPs	Y	*WOST:* Attitudes towards accessing sexual health services, CPs and pharmacy services were within the scope of this service. Other attitudes (e.g., regarding condom use) were not within the scope of the service. For instance, increasing the use of female and male condoms was not a service goal or outcome, thus attitudes towards condom use were not within the scope of the service. *CPs:* Attitudes towards WOST and delivering sexual health services could be addressed by this service. Addressing all dimensions of intersectional stigma and general negative attitudes towards WOST was out of the scope of this service. This may require a broader intervention in different settings (e.g., schools, drug services) and at different social-ecological levels (individual, interpersonal, organisational, community, societal).
6	Motivation *A drive to attain a certain goal or behave in a particular manner*	++	+	WOST, CPs	N	Motivation was an important determinant to sexual health risks among WOST, and for CPs to deliver sexual health services. However, focusing on other determinants may be more urgent to promote the uptake of sexual health services among WOST (e.g., stigmatising attitudes towards WOST). These may be preconditions for motivation. Making changes in these other determinants (attitudes, perceived barriers, risk awareness, beliefs, skills, self-efficacy and knowledge) may have an impact on motivation.
7	Outcome expectancies *Beliefs on anticipated consequences (positive or negative) that result from engaging in a particular behaviour*	++	+	WOST, CPs	N	Outcome expectancies were important to be addressed as they reflect what WOST and CPs expected from the service and their own actions. Outcome expectancies were considered to be difficult to change and, as for motivation, there may be other determinants that are preconditions to outcome expectancies (e.g., perceived barriers or beliefs).
8	Risk awareness	++	+	WOST	Y	Risk awareness in relation to the early detection and treatment of STIs and BBVs was within the scope of this

	Perception and acknowledgment that one is a at risk					service. Other aspects of risk awareness (e.g., regarding condom use) were not within the scope of the services. This was because increasing female and condom use was not one of the service goals or outcomes.
9	Emotions: love and trust *Love: feelings of affection* *Trust: belief in the reliability, truth or ability of something or someone*	++	+	WOST, CPs	N	*WOST*: Love and trust with sexual partners (and significant others) was not within the scope of this service, as it may require the involvement of other professionals and other settings for the service (e.g., drug services). Trust towards CPs was key for WOST to engage in the sexual health service. Trust was not directly targeted by the service as other determinants were considered to be preconditions to trust (e.g., stigma). *CPs*: Trust could be addressed in the context of community pharmacy, with CPs building trust and positive rapport with WOST. Attitudes and stigma seemed to be preconditions for trust, thus trust was not included as a determinant directly. Trust was rather a goal to attain through addressing other determinants.
10	Habits *Regular tendency or practice, usually embedded within one's lifestyle and routines*	++	+	WOST, CPs	Y	*WOST:* Habits were within the scope of this service and were an important determinant to target. Habits within the scope of the service were those related to accessing sexual health services only. Other habits (e.g., using female/male condoms consistently) were not included as the service did not aim to increase female and male condom use. *CPs:* Habits were important so that CPs delivered sexual health services regularly to WOST.
11	Beliefs *Acceptance and trust that something is true or exists without the need for proof*	++	+	WOST, CPs	Y	*WOST*: Beliefs around sexual health, pharmacy services and pharmacy could be addressed in this service. *CPs*: Beliefs around sexual health, drug use and their role in the care of WOST could be addressed in this service. Whilst beliefs were not the most important determinant, these were thought to be a precondition for other determinants that may be addressed by this or other services (e.g., outcome expectancies).
12	Skills *The ability of performing a particular task well*	++	++	WOST, CPs	Y	*WOST*: Skills to access and engage in services was included for this service. Despite its importance, skills to use female and male condoms correctly and consistently were not included as these were not a goal or outcome of the service. *CPs*: Skills in how to deliver the service and, especially, on how to communicate and interact with WOST were an important element of this service.
13	Self-efficacy *The believe in one's ability*	++	+	WOST, CPs	Y	*WOST*: Self-efficacy in accessing and engaging in services was included in this service. As for skills, self-efficacy in relation to other behaviours (e.g., negotiating condom use) was out of the scope of the service. *CPs*: Self-efficacy regarding the delivery of the service was important to be addressed in this service. Self-efficacy was closely linked to skills.

14	Social support *Perceived network of people that could and would assist one if needed*	++	+	WOST, CPs	N	*WOST*: Addressing social support (e.g., from significant others) was out of the scope of this service. Including social support could be an important element but would require for an intervention at multiple ecological levels (e.g., community level). Support from CPs was considered to be important. It was however not included as it was expected that addressing other determinants (e.g., attitudes) could increase perceived social support among WOST. *CPs:* Social support could be addressed in the context of community pharmacy, with CPs offering support to WOST. Addressing stigma and other negative attitudes, and building trust were however a precondition for social support in community pharmacy. This service focused on these other determinants, to also have an impact on social support.
15	Knowledge *The understanding of information*	++	++	WOST, CPs	Y	*WOST*: Knowledge of sexual health and sexual health services could be addressed in this pharmacy-based service. Even if knowledge was not one of the key determinants it could be a pre-requisite to address other determinants (e.g., risk awareness). *CPs*: Increasing knowledge among CPs (e.g., on how to identify signs of GBV) was important for this service. As for WOST, knowledge was not necessarily the most crucial determinant to focus on, but was the precondition for other determinants (e.g., skills).

Notes. Meaning of ratings: not very important or not easily changeable (+), important or changeable (++); very important or very changeable (+++). The list of theoretical approaches in this table is not meant to represent an exhaustive list of associated theoretical approaches. Those perceived to be most relevant were the ones included. From *Planning Health Promotion Programs: An Intervention Mapping Approach* (p. 307), by Bartholomew Eldredge et al., 2016, San Francisco, California: Jossey-Bass. Copyright [2016] by John Wiley & Sons, Inc. Adapted with permission (see Appendix 1).

Table 15

Matrix for individual-level outcome: obtain barrier methods

Performance objective	**Determinants**				
WOST will:	**Attitudes**	**Habits**	**Risk awareness**	**Beliefs and knowledge**	**Skills and self-efficacy**
PO.1. Decide to obtain free barrier methods	A.1.1. Express positive feelings about using barrier methods A.1.2. Express positive feelings about obtaining barrier methods A.1.3. Express positive feelings about CPs A.1.4. Express positive feelings accessing pharmacy services		RA.1.1. Recognise the general and personal risk of contracting STIs and BBVs if not using barrier methods	BK.1.1. State the potential consequences of not using barrier methods BK.1.2. Acknowledge that using barrier methods decreases the risk for STIs and BBVs	SSE.1.1. Express confidence in own ability to obtain free barrier methods SSE.1.2. Express confidence in overcoming embarrassment and stigma associated with obtaining free barrier methods SSE.1.3. Demonstrate their ability to obtain barrier methods

PO.2. Communicate with CPs about interest in obtaining free barrier methods	A.2.1. Express positive feelings about communicating about barrier methods and sexual health A.2.2. Express positive feelings about communicating with CPs	H.2.1. Develop a habit to communicate with CPs when deciding to obtain barrier methods	RA.2.1. Understanding the general and personal risks for STIs and BBVs if not communicating with health professionals about barrier methods and sexual health	BK.2.1. State that communicating with CPs could be positive to improve own sexual health	SSE.3.1. Express confidence in communicating with CPs SSE.3.2. Express confidence in overcoming embarrassment and stigma when communicating with CPs
PO.3. Engage in pharmacy services to obtain barrier methods	A.3.1. Express positive feelings about accessing and engaging in pharmacy services A.3.1. Express positive feelings about CPs	H.3.1. Develop a habit to engage in pharmacy services to obtain barrier methods	RA.3.1. Recognise risks for STIs and BBVs if not engaging in sexual health services	BK.3.1. State that engaging in pharmacy services could be positive to improve own sexual health	SSE.3.1. Express confidence in engaging in pharmacy services SSE.3.2. Express confidence in overcoming embarrassment and stigma when engaging in pharmacy services

Note. PO = performance objective; A = attitudes; H = habits; RA = risk awareness; BK = beliefs and knowledge; SSE = skills and self-efficacy.

Table 16

Matrix for individual-level outcome: screen for STIs and BBVs

Performance objective	**Determinants**				
WOST will:	**Attitudes**	**Habits**	**Risk awareness**	**Beliefs and knowledge**	**Skills and self-efficacy**
PO.1. Decide to get screened for STI/BBVs	A.1.1. Express positive feelings about screening for STIs and BBVs A.1.2. Express positive feelings about CPs A.1.4. Express positive feelings accessing pharmacy services		RA.1.1. Recognise (sexual) health risks of not screening for STIs and BBVs	BK.1.1. State the potential consequences of not screening for STIs and BBVs BK.1.2. Acknowledge that screening for STIs and BBVs helps protect sexual health, general health and wellbeing BK.1.3. Acknowledge the possibility of screening for STIs and BBVs in their local community pharmacy	SSE.1.1. Express confidence in own ability to screen for STIs and BBVs SSE.1.2. Express confidence in overcoming embarrassment and stigma associated with screening for STIs and BBVs
PO.2. Communicate with CPs about interest in STI/BBV	A.2.1. Express positive feelings about communicating about sex	H.2.1. Develop a habit to communicate with CPs when	RA.2.1. Recognise risks for STIs and BBVs if not communicating with	BK.2.1. State that communicating with CPs could be positive to protect sexual	SSE.2.1. Express confidence in communicating with CPs

screening and sexual health concerns	and sexual health A.2.2. Express positive feelings about communicating with CPs	deciding to screen for STIs and BBVs	health professionals about sexual health	health, general health and wellbeing	SSE.2.2. Express confidence in overcoming embarrassment and stigma when communicating with CPs
PO.3. Perform STI/BBV screening	A.3.1. Express commitment to perform STI/BBV screening	H.3.1. Develop a habit to perform STI/BBV screening regularly	RA.3.1. Recognise (sexual) health risks for not performing STI/BBV screening	BK.3.1. Describe the procedures to perform STI/BBV screening	SSE.3.1. Express confidence in performing STI/BBV screening SSE.3.2. Demonstrate ability to perform STI/BBV screening SSE.3.3. Express confidence in overcoming embarrassment and stigma when performing STI/BBV screening
PO.4. Obtain STI/BBV screening results	A.4.1. Express commitment to obtain screening results	H.4.1. Develop a habit to obtain STI/BBV screening results when screening for STIs and BBVs	RA.4.1. Recognise personal (sexual) health risks for not obtaining STI/BBV screening	BK.4.1. Describe process for obtaining screening results BK. 4.2. Express understanding on how to interpret the results	BK.4.1. Express confidence in ability to obtain screening results BK.4.2. Express confidence in coping with screening results BK.4.3. Express confidence in overcoming embarrassment and stigma when obtaining STI/BBV screening results

Note. PO = performance objective; A = attitudes; H = habits; RA = risk awareness; BK = beliefs and knowledge; SSE = skills and self-efficacy.

Table 17

Matrix for individual-level outcome: uptake treatment for STIs and BBVs

Performance objective	**Determinants**				
WOST will:	**Attitudes**	**Habits**	**Risk awareness**	**Beliefs and knowledge**	**Skills and self-efficacy**
PO.1. Decide to get treatment	A.1.1. Express positive feelings about STI/BBV treatment A.1.2. Express commitment to STI/BBV treatment A.1.3. Express positive feelings		RA.1.1. Recognise (sexual) health risks of not accessing STI/BBV treatment	BK.1.1. State the potential consequences of not treating for STI/BBV BK.1.2. State the benefits of STI/BBV treatment BK.1.3. Express understanding about the	SSE.1.1. Express confidence in own ability to uptake STI/BBV treatment SSE.1.2. Express confidence in overcoming embarrassment and stigma associated with STI/BBV treatment

	about CP providing/referring for treatment A.1.4. Express positive feelings about accessing STI/BBV treatment services			facts of STI or BBV diagnosed (i.e., transmission, symptomatology, diagnosis, treatment, comorbidity and mortality, professional and other support) BK. 1.4. Acknowledge that STI/BBV treatment helps protect sexual health, general health and wellbeing BK.1.5. Describe the health services to access for STI/BBV treatment	
PO.2. Communicate with CPs about treatment	A.2.1. Express positive feelings about communicating about STI/BBV treatment A.2.2. Express positive feelings about communicating with CPs	H.2.1. Develop a habit to communicate with CPs about treatment when diagnosed with an STI or a BBV	RA.2.1. Recognise the (sexual) health risks of not discussing treatment options with CPs	BK.2.1. State that communicating with CPs could be positive to protect sexual health, general health and wellbeing	SSE.2.1. Express confidence in communicating with CPs SSE.2.2. Express confidence in overcoming embarrassment and stigma when communicating with CPs
PO.3. Initiate and complete/undertake course of treatment	A.3.1. Express commitment to go through course of treatment	H.3.1. Develop a habit to initiate and complete/undertake course of treatment when diagnosed with an STI or a BBV	RA.3.1. Recognise the risks for of not initiating STI/BBV treatment RA.3.2. Recognise the risks for delaying STI/BBV treatment initiation	BK.3.1. Describe treatment procedures for specific diagnosis BK.3.2. Describe other forms of support available	SSE.3.1. Express confidence in initiating and completing/undertaking course of STI/BBV treatment SSE.3.2. Express confidence in overcoming embarrassment and stigma when initiating treatment

Note. PO = performance objective; A = attitudes; H = habits; RA = risk awareness; BK = beliefs and knowledge; SSE = skills and self-efficacy.

Table 18

Matrix for socio-structural level outcome: address stigma towards WOST in community pharmacy

Performance objective	**Determinants**				
CPs will:	**Perceived barriers**	**Attitudes**	**Habits**	**Beliefs and knowledge**	**Skills and self-efficacy**
PO.1. Decide to actively address stigma towards WOST in community pharmacy	PSB.1.1. Identify potential barriers to address stigma towards WOST (e.g., conflict with other clients),	A.1.1. Express positive feelings towards WOST (non-stigmatising)		BK.1.1. Understand intersectional stigma towards WOST BK.1.2. Describe ways to address stigma	SSE.1.1. Express confidence in their ability to address stigma towards WOST

	including own barriers and limitations (e.g., own stigmatising attitudes towards WOST) PSB.1.2. Anticipate potential barriers from WOST PSB.1.3. Identify ways to overcome barriers	A.1.2. Express commitment to address stigma towards WOST in community pharmacy		towards WOST in community pharmacy BK.1.3. Acknowledge that addressing stigma towards WOST can have a positive impact on women' sexual health, general health and wellbeing BK.1.4. Understand the need to address stigma towards WOST in community pharmacy BK.1.5. Describe their role in addressing stigma towards WOST	
PO.2. Address stigma towards WOST in community pharmacy	PSB.2.1. Identify potential barriers PSB.2.2. Act to overcome potential barriers as identified (PSB.1.3.)	A.2.1. Express positive feelings towards WOST (non-stigmatising) A.2.2. Express commitment to address stigma towards WOST in community pharmacy	H.2.1. Develop a habit to address stigma towards WOST in community pharmacy	BK.1.1. Understand intersectional stigma towards WOST BK.1.2. Describe ways to address stigma towards WOST in community pharmacy BK.1.3. Acknowledge that addressing stigma towards WOST can have a positive impact on women' sexual health, general health and wellbeing BK.1.4. Understand the need to address stigma towards WOST in community pharmacy BK.1.5. Describe their role in addressing stigma towards WOST	SSE.2.1. Express confidence in their ability to address stigma towards WOST SSE.2.2. Demonstrate skills to address stigma towards WOST

Note. PO = performance objective; PB = perceived barriers; A = attitudes; H = habits; BK = beliefs and knowledge; SSE = skills and self-efficacy.

Table 19

Matrix for socio-structural level outcome: identify gender-based violence and make appropriate referrals

Performance objective	**Determinants**				
CPs will:	**Perceived barriers**	**Attitudes**	**Habits**	**Beliefs and knowledge**	**Skills and self-efficacy**
PO.1. Decide to identify GBV among WOST	PSB.1.1. Identify potential barriers to identifying GBV among WOST (e.g., lack of time), including own barriers and limitations (e.g., views on GBV) PSB.1.2. Anticipate potential barriers from WOST (e.g., feeling judged) PSB.1.3. Identify ways to overcome barriers (e.g., plan time for private consultation)	A.1.1. Express positive feelings towards WOST (non-stigmatising) A.1.2. Express commitment to address GBV among WOST in community pharmacy		BK.1.1. Understand GBV BK.1.2. Describe ways to identify GBV (e.g., physical or behavioural signs of GBV) BK.1.3. Acknowledge that addressing GBV with WOST can have a positive impact on women's wellbeing and health BK.1.4. Understand the need to address GBV among WOST around GBV BK.1.5. Describe their role in addressing GBV among WOST	SSE.1.1. Express confidence in their ability to address GBV among WOST
PO.2. Identify situations of GBV among WOST	PSB.2.1. Identify potential barriers to identifying situations of GBV amongst WOST (e.g., lack of time) PSB.2.2. Act to overcome potential barriers as identified (PSB.1.3.)	A.2.1. Express positive feelings towards WOST (non-stigmatising) A.2.2. Express commitment to identify GBV among WOST in community pharmacy	H.2.1. Develop a habit to identify GBV among WOST	BK.2.1. Understand GBV BK.2.2. Describe ways to identify GBV (e.g., physical or behavioural signs of GBV) BK.2.3. Acknowledge that identifying GBV among WOST can have a positive impact on women's wellbeing and health BK.2.4. Understand the need for identifying GBV among WOST BK.2.5. Describe their role in identifying GBV among WOST	SSE.2.1. Express confidence in their ability to identify GBV among WOST SSE.2.2. Express confidence in their ability to overcome barriers to identifying GBV SSE.2.3. Demonstrate skills to identify situations of GBV among WOST SSE.2.4. Demonstrate skills to overcome barriers to identifying GBV among WOST
PO.3. Decide to have a	PSB.3.1. Identify potential barriers	A.3.1. Express positive feelings		BK.3.1. Understand GBV	SSE.3.1. Express confidence in their ability

discussion around GBV with WOST (if situation of GBV identified)	to have discussion (e.g., lack of time), including own barriers and limitations (e.g., views on GBV) PSB.3.2. Anticipate potential barriers from WOST (e.g., feeling judged) PSB.3.3. Identify ways to overcome barriers (e.g., plan time for private consultation)	about communicating with WOST (non-stigmatising) A.3.2. Express positive feelings about discussing GBV with WOST A.3.3. Express commitment to discussing GBV with WOST		BK.3.2. Acknowledge that discussing GBV with WOST can have a positive impact on women's wellbeing and health BK.3.3. Understand the need for having discussions with WOST around GBV BK.3.4. Describe their role in addressing GBV among WOST	to discuss GBV with WOST
PO.4. Prepare discussion around GBV (if situation of GBV identified)	PSB.4.1. Anticipate and prepare for potential barriers to initiate and hold the discussion PSB.4.2. Plan the use of facilitators to initiate and hold the discussion	A.4.1. Express positive feelings about communicating with WOST (non-stigmatising) A.4.2. Express commitment to plan the discussion	H.4.1. Develop a habit to prepare the discussion on GBV	BK.4.1. Acknowledge the benefits of preparing the discussion BK.4.2. Acknowledge that discussing GBV with WOST can have a positive impact on women's wellbeing and health BK.4.3. Describe the steps to prepare the discussion BK.4.4. List the steps that need to be completed to initiate and maintain the discussion BK.4.5. Acknowledge their role in addressing GBV among WOST	SSE.4.1. Express confidence in preparing the discussion SSE.4.2. Demonstrate skills to prepare the discussion
PO.5. Initiate a discussion on sexual health (if situation of GBV identified)	PSB.5.1. Identify potential barriers PSB.5.2. Act to overcome potential barriers as planned	A.5.1. Express positive feelings about communicating with WOST (non-stigmatising) A.5.2. Express commitment to initiate a discussion on GBV with WOST	H.5.1. Develop a habit to initiate a discussion on GBV with WOST	BK.5.1. Recognise the steps to initiate the discussion on GBV BK.5.2. Acknowledge that discussing GBV with WOST can have a positive impact on women's wellbeing and health BK.5.3. Acknowledge their role in addressing GBV among WOST	SSE.5.1. Express confidence in their ability to approach WOST to discuss GBV SSE.5.2. Express confidence in their ability to overcome barriers to initiating a discussion on GBV SSE.5.3. Demonstrate skills to initiate a discussion on GBV SSE.5.4. Demonstrate skills to overcome

					barriers to initiating a discussion on GBV
PO.6. Have discussion around GBV with WOST (if situation of GBV identified)	PSB.6.1. Recognise potential barriers PSB.6.2. Act to overcome potential barriers as planned	A.6.1. Express positive feelings about communicating with WOST (non-stigmatising) A.6.2. Express commitment to have a discussion on GBV with WOST	H.6.1. Develop a habit to discuss GBV with WOST	BK.6.1. Recognise the steps to initiate the discussion on GBV BK.6.2. Acknowledge that discussing GBV with WOST can have a positive impact on women's wellbeing and health BK.6.3. Acknowledge their role in addressing GBV among WOST	SSE.6.1. Express confidence in their ability to discuss GBV SSE.6.2. Express confidence in their ability to overcome barriers to having a discussion on GBV SSE.6.3. Demonstrate skills to have a discussion on GBV SSE.6.4. Demonstrate skills to overcome barriers to having a discussion on GBV
PO.7. Decide to make appropriate referrals when identifying situations of GBV	PSB.7.1. Identify potential barriers to make referrals for GBV, including those from WOST (e.g., reluctance to being referred) PSB.7.2. Identify ways to overcome barriers	A.7.1. Express positive feelings towards WOST (non-stigmatising) A.7.2. Express commitment to make referrals for GBV with WOST		BK.7.1. Acknowledge the need to address GBV among WOST BK.7.2. Acknowledge the need to make appropriate and timely referrals for GBV BK.7.3. Recognise appropriate professionals and services to make referrals for GBV BK.7.4. Describe ways to make referrals for GBV BK.7.5. Acknowledge that making referrals for GBV can have a positive impact on women's wellbeing and health BK.7.6. Describe their role in addressing GBV among WOST	SSE.1.1. Express confidence in their ability to make referrals for GBV among WOST
PO.8. Make appropriate and timely referrals for GBV	PSB.8.1. Recognise potential barriers PSB.8.2. Act to overcome potential barriers as planned	A.8.1. Express positive feelings towards WOST (non-stigmatising) A.8.2. Express commitment to make referrals for GBV	H.8.1. Develop a habit to make appropriate referrals when identifying situations of GBV	BK.8.1. Acknowledge the need to address GBV BK.8.2. Acknowledge the need to make appropriate and timely referrals for GBV	SSE.8.1. Express confidence in their ability to make referrals for GBV among WOST SSE.8.2. Demonstrate skills to make referrals for GBV among WOST

				BK.8.3. Recognise appropriate professionals and services to make referrals for GBV BK.8.4. Describe ways to make referrals for GBV BK.8.5. Acknowledge that making referrals for GBV can have a positive impact on women's wellbeing and health BK.8.6. Describe their role in addressing GBV among WOST	

Note. PO = performance objective; PB = perceived barriers; A = attitudes; H = habits; BK = beliefs and knowledge; SSE = skills and self-efficacy.

Table 20

Matrix for socio-structural level outcome: provide information and guidance

Performance objective	**Determinants**				
CPs will:	**Perceived barriers**	**Attitudes**	**Habits**	**Beliefs and knowledge**	**Skills and self-efficacy**
PO.1. Decide to have discussion around sexual health	PSB.1.1. Identify potential barriers to have discussion (e.g., lack of time), including own barriers and limitations (e.g., discomfort having a discussion on sexual health) PSB.1.2. Anticipate potential barriers from WOST (e.g., feeling judged) PSB.1.3. Identify ways to overcome barriers (e.g., plan time for private consultation)	A.1.1. Express positive feelings about communicating with WOST (non-stigmatising) A.1.2. Express positive feelings about discussing sexual health with WOST		BK.1.1. Describe the main facts about STIs and BBVs (i.e., transmission, symptomatology, diagnosis, treatment, comorbidity, mortality, available support) BK.1.2. Acknowledge that discussing sexual health with WOST can have a positive impact on women' sexual health, general health and wellbeing BK.1.3. Understand the need for having discussions with WOST around sexual health BK.1.4. Understand the sexual health needs of WOST	SSE.1.1. Express confidence in their ability to discuss sexual health with WOST

				BK.1.5. Describe their role in promoting sexual health among WOST	
PO.2. Prepare discussion around sexual health	PSB.2.1. Anticipate and prepare for potential barriers to initiate and hold the discussion PSB.2.2. Plan the use of facilitators to initiate and hold the discussion	A.2.1. Express positive feelings about communicating with WOST (non-stigmatising) A.2.2. Express commitment to plan the discussion		BK.2.1. Acknowledge the benefits of preparing the discussion BK.2.2. Acknowledge that discussing sexual health with WOST can have a positive impact on their sexual health, general health and wellbeing BK.2.3. Describe the steps to prepare the discussion BK.2.4. List the steps that need to be completed to initiate and maintain the discussion BK.2.5. Acknowledge their role in promoting sexual health among WOST	SSE.2.1. Express confidence in preparing the discussion SSE.2.2. Demonstrate skills to prepare the discussion
PO.3. Initiate a discussion on sexual health	PSB.3.1. Identify potential barriers PSB.3.2. Act to overcome potential barriers as planned	A.3.1. Express positive feelings about communicating with WOST (non-stigmatising) A.3.2. Express commitment to initiate a discussion on sexual health	H.3.1. Develop a habit to initiate a discussion on sexual health with WOST	BK.3.1. Recognise the steps to initiate the discussion on sexual health BK.3.2. Acknowledge that discussing sexual health with WOST can have a positive impact on their sexual health, general health and wellbeing BK.3.3. Acknowledge their role in promoting sexual health among WOST	SSE.3.1. Express confidence in their ability to approach WOST to discuss sexual health SSE.3.2. Express confidence in their ability to overcome barriers to initiating a discussion on sexual health with WOST SSE.3.3. Demonstrate skills to initiate a discussion on sexual health SSE.3.4. Demonstrate skills to overcome barriers to initiating a discussion on sexual health
PO.4. Have discussion on sexual health	PSB.4.1. Recognise potential barriers PSB.4.2. Act to overcome potential barriers as planned	A.4.1. Express positive feelings about communicating with WOST (non-stigmatising) A.4.2. Express commitment to	H.4.1. Develop a habit to discuss sexual health with WOST	BK.4.1. Recognise the steps to have a discussion on sexual health BK.4.2. Acknowledge that discussing sexual health with WOST can have a	SSE.4.1. Express confidence in their ability to discuss sexual health SSE.4.2. Express confidence in their ability to overcome barriers to having a discussion

		have a discussion on sexual health		positive impact on their sexual health, general health and wellbeing BK.4.3. Acknowledge their role in promoting sexual health among WOST	on sexual health SSE.4.3. Demonstrate skills to have a discussion on sexual health SSE.4.4. Demonstrate skills to overcome barriers to having a discussion on sexual health
PO.5. Answer WOST's questions and concerns	PSB.5.1. Recognise potential barriers PSB.5.2. Act to overcome potential barriers as planned	A.5.1. Express positive feelings about communicating with WOST (non-stigmatising) A.5.2. Express positive feelings to answer WOST's questions and concerns A.5.3. Express commitment to answer WOST's questions and concerns	H.5.1. Develop a habit to answer WOST's questions and concerns	BK.5.1. Acknowledge that answering WOST's questions and concerns can have a positive impact on their sexual health, general health and wellbeing BK.5.2. Acknowledge their role in promoting sexual health among WOST	SSE.5.1. Express confidence in their ability to answer clients' questions and concerns SSE.5.2. Demonstrate skills to answer clients' questions and concerns

Note. PO = performance objective; PB = perceived barriers; A = attitudes; H = habits; BK = beliefs and knowledge; SSE = skills and self-efficacy.

Table 21

Matrix for socio-structural level outcome: offer and provide barrier methods

Performance objective	**Determinants**				
CPs will:	**Perceived barriers**	**Attitudes**	**Habits**	**Beliefs and knowledge**	**Skills and self-efficacy**
PO.1. Provide information around sexual health (SSO.3.)	(see Table 20)	(see Table 20)	(see Table 20)	(see Table 20)	(see Table 20)
PO.2. Offer free male *and* female condoms	PSB.2.1. Recognise potential barriers PSB.2.2. Act to overcome potential barriers as planned	A.2.1. Express positive feelings about communicating with WOST (non-stigmatising) A.2.2. Express positive feelings about offering condoms to WOST	H.2.1. Develop a habit to offer male and female condoms to WOST	BK.2.1. Acknowledge the benefits of facilitating the availability of condoms to WOST BK.2.2. Acknowledge that offering condoms to WOST can have a positive impact on their sexual health, general health and wellbeing	SSE.2.1. Express confidence in their ability to offering condoms to WOST SSE.2.2. Express confidence in their ability to overcome barriers to offering condoms to WOST SSE.2.3. Demonstrate skills to offering

		A.2.3. Express commitment to offer condoms to WOST		BK.2.3. Acknowledge that availability of condoms does not necessarily translate into condom use BK.2.4. Understand the need for offering condoms to WOST BK.2.5. Describe their role in promoting sexual health among WOST	condoms to WOST SSE.2.4. Demonstrate skills to overcome barriers to offering condoms to WOST
PO. 3. Answer WOST's questions or concerns	PSB.3.1. Recognise potential barriers PSB.3.2. Act to overcome potential barriers as planned	A.3.1. Express positive feelings about communicating with WOST (non-stigmatising) A.3.2. Express positive feelings to answer WOST's questions and concerns A.3.3. Express commitment to answer WOST's questions and concerns	H.3.1. Develop a habit to answer WOST's questions and concerns	BK.3.1. Acknowledge that answering WOST's questions and concerns can have a positive impact on their sexual health, general health and wellbeing BK.3.2. Acknowledge their role in promoting sexual health among WOST	SSE.3.1. Express confidence in their ability to answer clients' questions and concerns SSE.3.2. Demonstrate skills to answer clients' questions and concerns

Note. PO = performance objective; PSB = perceived and structural barriers; A = attitudes; OE = outcome expectancies; BK = beliefs and knowledge; SSE = skills and self-efficacy.

Table 22

Matrix for socio-structural level outcome: STI/BBV screening, treatment and referrals

Performance objective	**Determinants**				
CPs will:	**Perceived barriers**	**Attitudes**	**Habits**	**Beliefs and knowledge**	**Skills and self-efficacy**
PO.1. Provide information around sexual health (SSO.3.)	(see Table 20)	(see Table 20)	(see Table 20)	(see Table 20)	(see Table 20)
PO.2. Offer WOST free STI/BBV screening	PSB.2.1. Recognise potential barriers PSB.2.2. Act to overcome potential barriers as planned	A.2.1. Express positive feelings about communicating with WOST (non-stigmatising) A.2.2. Express positive feelings about offering STI/BBV screening to WOST	H.2.1. Develop a habit to offer free STI/BBV screening to WOST	BK.2.1. Acknowledge that offering STI/BBV screening to WOST will a positive impact on their sexual health, general health and wellbeing BK.2.2. Understand the need for offering STI/BBV screening to WOST	SSE.2.1. Express confidence in their ability to offer STI/BBV screening to WOST SSE.2.2. Express confidence in their ability to overcome barriers to offering STI/BBV screening to WOST

		A.2.3. Express commitment to offer STI/BBV screening to WOST		BK.2.3. Describe their role in promoting sexual health among WOST	SSE.2.3. Demonstrate skills to offer STI/BBV screening to WOST SSE.2.4. Demonstrate skills to overcome barriers to offering STI/BBV screening to WOST
PO.3. Perform STI/BBV screening	PSB.3.1. Recognise potential barriers PSB.3.2. Act to overcome potential barriers as planned	A.3.1. Express positive feelings about communicating with WOST (non-stigmatising) A.3.2. Express positive feelings about performing STI/BBV screening A.3.3. Express commitment to perform STI/BBV screening		BK.3.1. Identify relevant screening procedures BK.3.2. Describe the steps to perform STI/BBV screening BK.3.3. Acknowledge that offering STI/BBV screening to WOST will have a positive impact on their sexual health, general health and wellbeing	SSE.3.1. Express confidence in their ability to perform STI/BBV screening SSE.3.2. Demonstrate skills to perform STI/BBV screening
PO.4. Send samples to the laboratory for testing	PSB.4.1. Recognise potential barriers PSB.4.2. Act to overcome potential barriers as planned	A.4.1. Express commitment to send samples to the laboratory for testing	H.4.1. Develop a habit to send samples to the laboratory for testing	BK.4.1. Describe the steps to send samples to the laboratory for testing BK.4.2. Acknowledge that sending samples to the laboratory will have a positive impact on WOST' sexual health, general health and wellbeing	SSE.4.1. Express confidence in their ability to send samples to the laboratory SSE.4.2. Demonstrate skills to send samples to the laboratory
PO.5. Notify WOST of results in a private space within the pharmacy	PSB.5.1. Recognise potential barriers PSB.5.2. Act to overcome potential barriers as identified (PSB.5.1.)	A.5.1. Express positive feelings about communicating with WOST (non-stigmatising) A.5.2. Express positive feelings about notifying results A.5.3. Express commitment to notify results	H.5.1. Develop a habit to notify STI/BBV screening results to WOST	BK.5.1. Describe the steps to notifying results BK.5.2. Acknowledge that notifying results will have a positive impact on WOST' sexual health, general health and wellbeing BK.5.3. Acknowledge the potential difficulties of notifying results (e.g., WOST's reactions in relation to positive results)	SSE.5.1. Express confidence in their ability to notify WOST of results SSE.5.2. Demonstrate skills to notify WOST of results

				BK.5.4. Describe the main facts about STIs and BBVs (i.e., transmission, symptomatology, diagnosis, treatment, comorbidity, mortality, available support)	
PO.6. If positive results, discuss treatment options	PSB.6.1. Recognise potential barriers PSB.6.2. Act to overcome potential barriers as planned	A.6.1. Express positive feelings about communicating with WOST (non-stigmatising) A.6.2. Express positive feelings about discussing treatment options A.6.3. Express commitment to discussing treatment options	H.6.1. Develop a habit to discuss treatment options with WOST, if positive results	BK.6.1. Describe the steps involved in discussing treatment options BK.6.2. Acknowledge that discussing treatment options will a positive impact on WOST' sexual health, general health and wellbeing BK.6.3. Describe the main facts about STIs and BBV treatment and available support	SSE.6.1. Express confidence in their ability to discuss treatment options SSE.6.2. Demonstrate skills to discussing treatment options
PO.7. If positive results, initiate treatment/refer to appropriate professionals/services to initiate treatment	PSB.7.1. Recognise potential barriers PSB.7.2. Act to overcome potential barriers as planned	A.7.1. Express positive feelings about communicating with WOST (non-stigmatising) A.7.2. Express positive feelings about initiating treatment and/or making referrals to relevant professionals/services A.7.3. Express commitment to initiating treatment and/or referring WOST to relevant professionals/services	H.7.1. Develop a habit to initiate treatment/refer to appropriate professionals/services, if positive results	BK.7.1. Describe relevant treatment options for STIs and BBVs BK.7.2. Identify relevant professionals and services for people living with an STI or BBV BK.7.3. Describe the steps for referrals BK.7.4. Acknowledge that initiating treatment and/or referring to relevant professionals/services will have a positive impact on WOST' sexual health, general health and wellbeing	SSE.7.1. Express confidence in their ability to initiate treatment SSE.7.2. Express confidence in their ability to make relevant referrals SSE.7.3. Demonstrate skills to initiate treatment SSE.7.4. Demonstrate skills to make relevant referrals
PO. 8. Answer WOST's questions or concerns	PSB.8.1. Recognise potential barriers PSB.8.2. Act to overcome potential barriers as planned	A.8.1. Express positive feelings about communicating with WOST (non-stigmatising) A.8.2. Express positive feelings to answer WOST's questions	H.8.1. Develop a habit to answer WOST's questions and concerns	BK.8.1. Acknowledge that answering WOST's questions and concerns can have a positive impact on their sexual health, general health and wellbeing BK.8.2. Acknowledge their role in	SSE.8.1. Express confidence in their ability to answer clients' questions and concerns SSE.8.2. Demonstrate skills to answer clients' questions and concerns

		and concerns	promoting sexual health among WOST
		A.8.3. Express commitment to answer WOST's questions and concerns	

Note. PO = performance objective; PSB = perceived and structural barriers; A = attitudes; OE = outcome expectancies; BK = beliefs and knowledge; SSE = skills and self-efficacy.

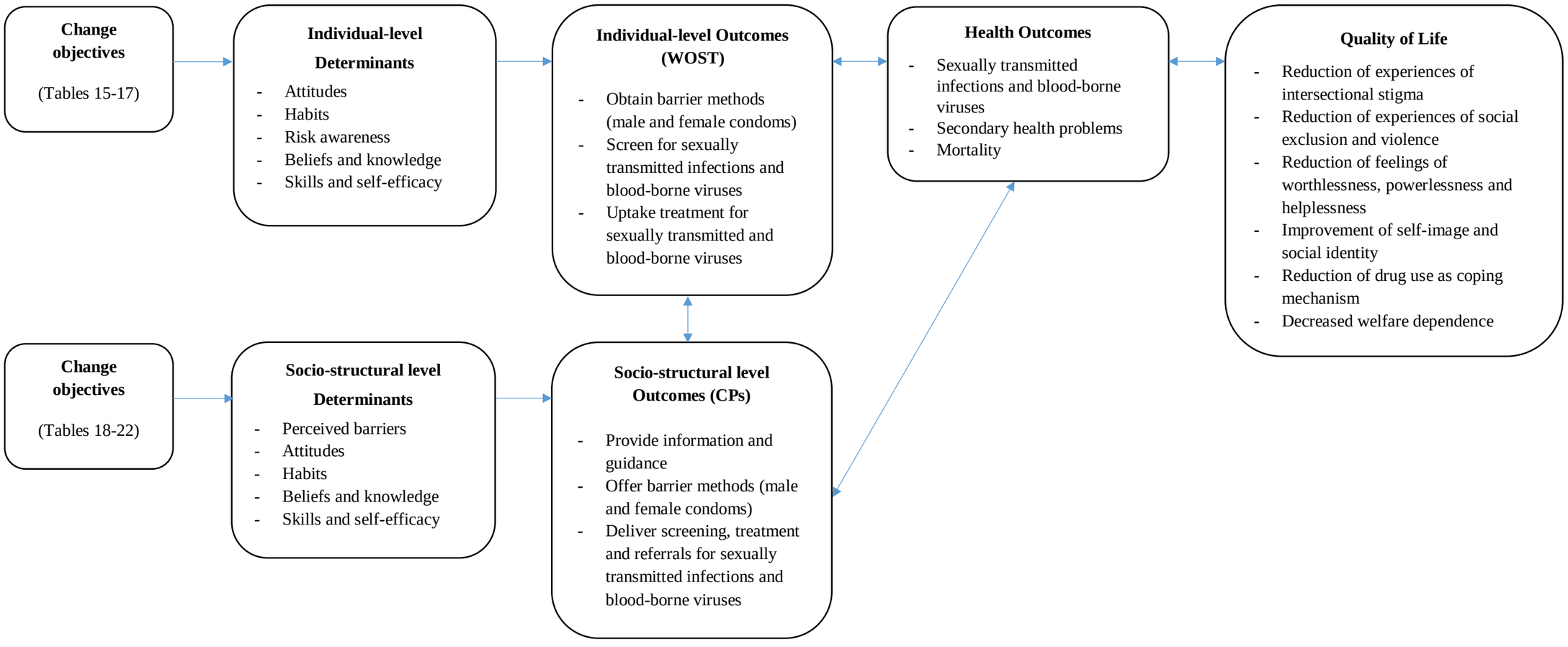


Figure 10. Logic Model of Change

8.8. Summary

This chapter presented suggestions on the design of a sexual health service for WOST in community pharmacy. These are built from the findings presented in previous chapters of this thesis (see Chapters 3-6).

The chapter contains the goals and outcomes of the service at the individual and socio-structural levels. Determinants of health were identified. Those relevant to the service goals and outcomes were selected from a more extensive list, are were: perceived barriers; attitudes (including stigma); habits; risk awareness; beliefs and knowledge; and skills and self-efficacy. Determinants were then mapped with performance objectives to create matrices of change objectives. In these matrices, change objectives were defined.

This PhD research, including the suggestions for service design will inform future research and the further development of a sexual and reproductive health service for WOST in community pharmacy. Suggestions for next steps for service design are provided in Chapter 9.

CHAPTER 9. Discussion

The main aim of this PhD research was to explore the opportunities for designing and implementing a sexual health service for WOST in community pharmacies in England. There were four objectives in this PhD research (see page 10). The first was to explore the sexual health risks that WOST are exposed to, and how these may be associated with a higher risk for the sexual transmission of STIs and BBVs. The second was to understand the needs of WOST for STI/BBV prevention. The third objective was to explore the potential role that CPs could play in promoting sexual health amongst this group of women. The last objective was to provide initial suggestions for designing a pharmacy-based sexual health service in England that addresses the needs of WOST. An integrative discussion of all aims and objectives is presented in this final chapter.

The first section of this chapter includes a critical discussion of the findings. This is followed by a critique on health service design, and specifically of the IM approach (Bartholomew Eldredge et al., 2016). The impact and future directions of this research, together with its strengths and the limitations are also outlined at the end of this chapter.

9.1. Discussion of Main Findings

This PhD research has highlighted the complex interrelation of factors that may be related to sexual health risks among WOST. This was already evident when conducting a systematic literature review for Study 1 (Chapter 3) and became even more multifaceted when conducting and analysing the semi-structured interviews and focus groups for Study 2 (Chapters 4-6). The intersection of factors at different social-ecological levels became apparent when analysing all data. In this section, data from this PhD research are discussed through the lens of the Social-Ecological Approach and Intersectionality Theory, to offer a bird's-eye view on the complexity of the factors associated with sexual health risk among WOST. This corresponds with the main aim and first two objectives of this PhD research (see page 10). This section also offers a discussion on the design of a pharmacy-based sexual health service for WOST and the role that CPs could play. This is to address objectives three and four of this study (see page 10). The need for a Social-Ecological and Intersectionality approach is discussed first.

9.1.1. A Social-Ecological and Intersectionality Approach to Sexual Health Risks among WOST

Despite the calls in the last decades to challenge the predominant focus on individual-level approaches to behaviour change in health promotion (Davis, Campbell, Hildon, Hobbs, & Michie, 2015; Glanz & Bishop, 2010; Link & Phelan, 1995), some research and public health strategies are still focused on changing individual behaviours (Davis et al., 2015; Kelly et al., 2010). This is a rather

reductionist perspective of human behaviour that appears to still be dependent on the biomedical approach (Kelly et al., 2010; Kelly et al., 2009). Merely focusing on individual behaviour is just not enough. This argument is supported by the data from this PhD research, which also suggests that reductionist approaches to health promotion may encourage a blaming attitude towards those who are most vulnerable to poorer health outcomes. This could inevitably widen social and health inequities among those groups already marginalised, such as WOST. The existence of social and health inequities is a social problem. Researchers and health promoters cannot simply expect that social problems can be addressed without changing the "top structures" of our societies. Social and health systems then need to be challenged to accommodate fundamental human rights, such as the access to healthcare. Changes in individual behaviours and health outcomes should then follow. As already stated above, promoting blame and placing full responsibility on individuals to change their behaviour may be detrimental to attaining positive change. In this context, individuals – and especially those most vulnerable – may be even more disempowered towards promoting their own health.

Another critique of the current approaches to health promotion relates to the emphasis on effectiveness and cost-effectiveness. This focus co-exists in a world in which healthcare (and health outcomes) are ruled by economic interests. Biomedical and technological "solutions" are still prioritised over socio-structural approaches, by allocating more funding to research and practices that could lead to financial benefits (Pratt & Loff, 2012). The economic crisis in the last decade has also led to a decline in the quality of healthcare worldwide (Williams & Maruthappu, 2013), which inevitably has a negative impact on the population's health. Despite considering the value and need for health economics and acknowledging the realities of modern society, limiting health costs should not be the focal point of public health strategies. Efforts to promote health and prevent disease need to ensure social justice and tackle social and health inequities. Defending human rights and advocating for social justice should then be *a* (if not *the*) priority, alongside reducing the incidence of health conditions and promoting global health. Therefore, decisions on public health strategies should not be driven solely by the economics of health (Dahlgren & Whitehead, 1991).

Consistent with this argument, some academics have already advocated the use of complex systems approaches to public health that address factors at all ecological levels (Krieger, 1994, 2001; McLeroy et al., 1988; Rutter et al., 2017; Sniehotta et al., 2017). These approaches incorporate both individual and socio-structural factors as determinants of health. The findings from this research serve as evidence for the need to take a *Social-Ecological Approach* (Bronfenbrenner, 1979; Degenhardt et al., 2010; McLeroy et al., 1988; Wellings et al., 2006) to promote sexual health among WOST. The Social-Ecological Approach originates from the Ecological Systems Theory developed by the psychologist Urie Bronfenbrenner (Bronfenbrenner, 1979), who highlighted the influences of the environment in human development. Over a decade later, McLeroy et al. (1988) developed a Social-Ecological Approach for health promotion (see Figure 11). These approaches called for the

abandonment of frameworks focusing on individual-level behaviour change programmes, as they fail to acknowledge the influences of the social, cultural, political, and economic context. Instead, the Social-Ecological Approach for health promotion integrates factors and processes at several ecological levels that then influence health behaviour:

1. Intrapersonal factors: individual characteristics, such as beliefs, skills or attitudes.
2. Interpersonal processes: interactions in formal and informal social networks and social support systems.
3. Organisational factors: characteristics and regulations of institutions or organisations.
4. Community factors: relationships between institutions or organisations, and other networks.
5. Public policy: laws and policies.

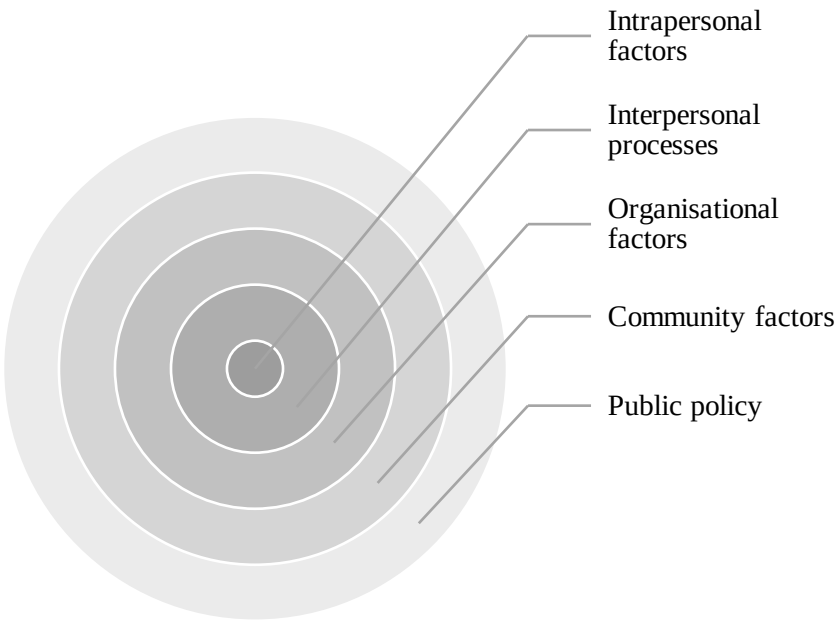


Figure 11. Social-Ecological Approach for health promotion, adapted from McLeroy et al. (1988).

In this PhD research, factors found to be associated with sexual health risks among WOST were at all levels of the Social-Ecological Approach. There were *individual factors* (e.g., worthlessness and powerlessness), *interpersonal processes or factors* (e.g., trust and social support), *organisational factors* (e.g., availability of sexual health services), *community factors* (e.g., intersectional stigma towards WOST), and *public policy-related factors* (e.g., national policy on sex and sexual health education). Using the Social-Ecological Approach is useful to understand the intricate relationships between STI/BBV risk-related factors among this group of women. It is however important to note that some factors were present at several levels of the Social-Ecological Approach. Intersectional stigma was a good example of this, as experiences of stigma were found at the intrapersonal level (internalised stigma), interpersonal level (e.g., stigmatisation from health

professionals), organisational level (e.g., structural stigma embedded in health services), community level (e.g., social exclusion), and policy level (e.g., structural neglect reflected in public policy).

Social-Ecological models have already been developed to understand substance use (Gruenewald, Remer, & LaScala, 2014; Matto, 2004) and HIV risk among vulnerable populations, including PWID (Baral et al., 2013) and sex workers (Larios et al., 2009), and substance use and sexual health risks (Elkington, Bauermeister, & Zimmerman, 2011). A theoretical development of this PhD was to create a modified Social-Ecological Model for sexual health risks in WOST (see Figure 12). It is worth noting that this model is not exhaustive and further research should be conducted in order to have a wider picture on sexual health risks among WOST (see page 238). Longitudinal and mixed-methods studies could be valuable to identify relevant factors, and to explore the interactions between these. Sociological and policy research could have important contributions to this model. The main factors associated with sexual health risks among WOST have already been presented in Chapter 6.

9.1.1.1. Intrapersonal factors

There were several factors at the intrapersonal level identified in this study. These were primarily related to:

1. Social identity: feelings of worthlessness and powerlessness, perceived negative social identity, and internalised intersectional stigma.
2. Significant others: love and trust, and feelings of helplessness.
3. Life stories and current life situations: feelings of powerlessness and helplessness, risk awareness, prioritisation of drug use and lifestyle.
4. General beliefs and knowledge.
5. Sexual orientation.

The intrapersonal factors presented here are important to consider in order to understand sexual health risks among WOST. However, these must not be seen in isolation, as they are only the tip of the iceberg in the complexities of risk. In this thesis it is argued that these intrapersonal factors are mostly influenced by social and structural factors, and particularly by social inequities of health.

9.1.1.2. Interpersonal processes

Interpersonal processes were those associated with the type and quality of WOST's interactions with others around them, including significant others and health professionals:

1. Lack of social and professional support.
2. Trust, rapport and communication with health professionals.

3. Engagement in transactional sex.
4. Intersectional stigma.
5. Gender-based violence.

As it is discussed later in this chapter, experiences of GBV, engagement in transactional sex and intersectional stigma are key in understanding sexual health risks among WOST. They are also crucial for STI/BBV prevention among this group of women. Building trusting relationships with health professionals, based on positive rapport and communication was another main factor identified at the interpersonal level. WOST perceived a generalised lack of social and professional support that had been maintained throughout their lives. This posed a greater challenge to care for their sexual health, as well as having implications on their drug use and general health. Interpersonal factors influence factors at the intrapersonal level.

9.1.1.3. Organisational factors

Organisational factors were mainly associated with health services and community pharmacy:

1. Structural neglect and structural violence[19]: limited availability of specialised sexual health services.
2. Structural barriers to developing and implementing sexual health services (e.g., time and finances).
3. Intersectional stigma.
4. Taboo of sex and sexual health.

It became evident throughout this research that current health services for WOST were not addressing the sexual health needs of this population group. There seemed to be a limited availability of sexual health services, and none are specifically directed to WOST. Only harm reduction services (e.g., needle exchange) and BBV screening appeared to be made available and actively offered to WOST. There is however the need to develop holistic services that include all aspects of WOST sexual health. There were also important structural barriers to developing and implementing new services, such as time and financial constraints. These need to be considered when designing health services. These barriers need to also be considered as factors associated to sexual health risks, as they limit the availability and accessibility to services. Intersectional stigma was again key at the organisational level. It created significant barriers for implementing services and building trust, positive rapport and communication between CPs and WOST. It also limited the access of WOST to (sexual) health services. Similarly, the taboo of sex and sexual health posed a challenge for WOST to

[19] A form of violence in which a social structure of institution fails to ensure social justice and equity, causing harm to individuals (Galtung, 1969).

accessing (sexual) health services. Feelings of shame and embarrassment to discuss sexual health was a barrier for both WOST and CPs.

9.1.1.4. Community factors

There were several community factors identified in this PhD research:

1. Social inequities.
2. Intersectional stigma.
3. Social norms and gender roles.
4. Taboo of sex and sexual health.

Community factors were of high importance as they may be determinants for factors at other ecological levels (e.g., GBV). In this chapter, the role of social inequities on sexual health risks among WOST is discussed in more depth. The associations between intersectional stigma and sexual health have already been discussed in Chapter 4 (see page 97). Social norms and gender roles are of high relevance too as they are at the core of other factors such as intersectional stigma and GBV. They are also closely related to social inequities. The taboo nature of sex and sexual health is also significant at the community-level. As with social norms and gender roles, these taboos are socially constructed and create important barriers for STI/BBV prevention. They limit sexual health education and communication and where and in what settings these topics can be discussed. They are also the root of STI/BBV- and transactional sex-related stigmas.

9.1.1.5. Public policy

This PhD research did not investigate policy directly, although findings suggested important policy implications as it seems that policies are failing to address the sexual health needs of WOST. As for organisational-level factors, structural neglect and structural violence were also a reality at the public policy level. The findings from this study made apparent that the health and educational systems in the UK could have been neglecting the sexual health needs of WOST. This created important challenges for STI/BBV prevention through the lack of specialised sexual health services for WOST, and limited training of CPs on drug use and sexual health. This neglect and structural violence was also a factor for sexual health risks among WOST as most women did not have access to sexual health education of quality and, as already mentioned, specialised sexual health services.

This chapter offers a critical discussion of what seems to be at the core of the factors associated with sexual health risks among WOST at all ecological levels: social inequities.

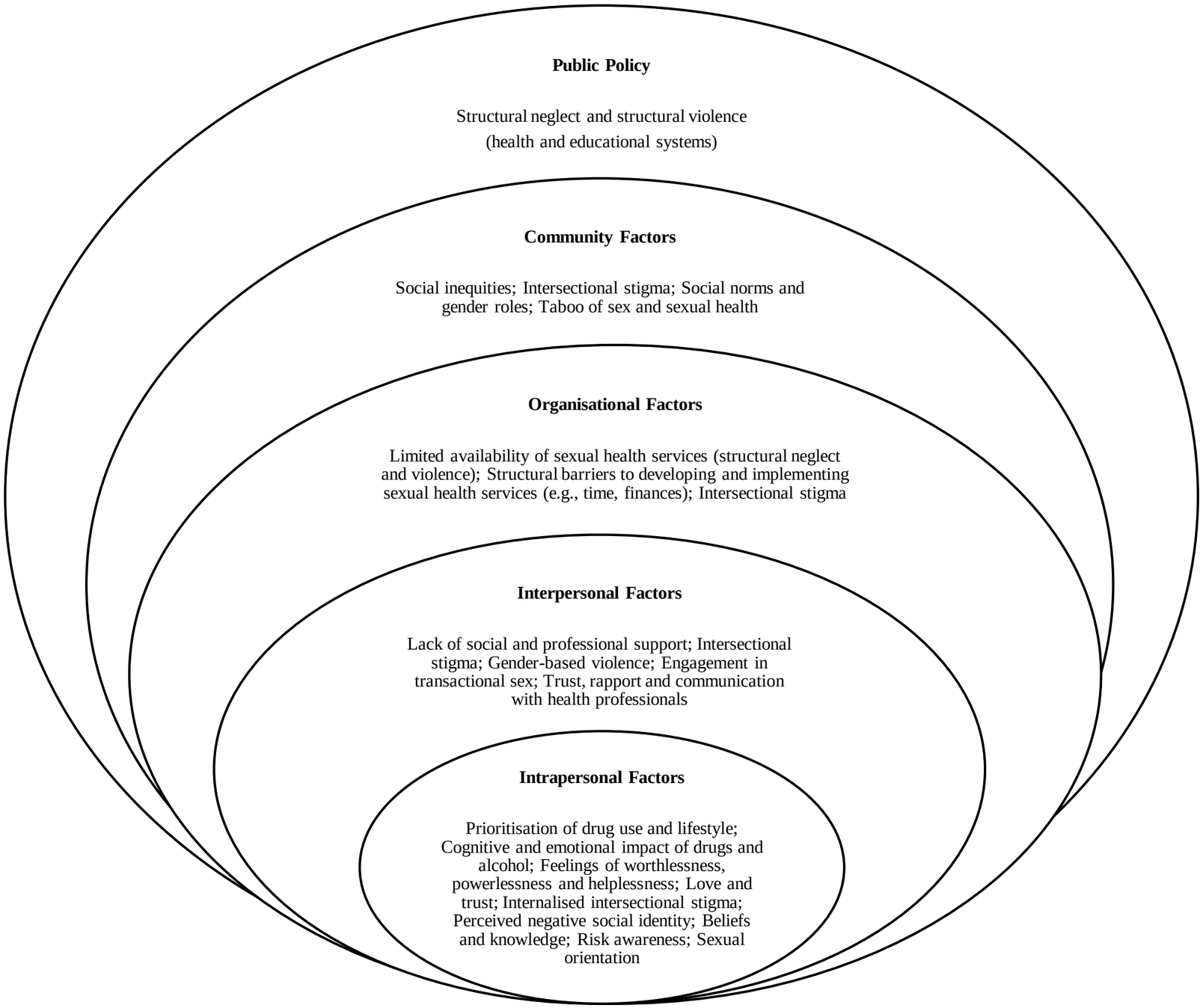


Figure 12. Modified Social-Ecological Model for sexual health risks among WOST, adapted from (Baral et al., 2013; McLeroy et al., 1988).

9.1.2. Social Inequities and Health: Invisibility, Exclusion and Neglect

Equity was one of the main values of this research (see page 13). Social inequities are concerned with the unjust distribution of power among different social groups and communities. Social inequities have a great impact on health and generating health inequities (Braveman, 2014; Braveman & Gruskin, 2003a, 2003b; Braveman et al., 2011; Krieger, 2014). Social inequities were apparent among WOST, as they were mostly seen through the lens of their belonging to stigmatised and socially excluded groups (i.e., women, PWUD, transactional sex workers, people living in situations of homelessness, and people living with an STI or a BBV) (see Chapters 3-7). Intersectional stigma associated with pertaining to these social groups has already been discussed in Chapter 4 (see page 97). Here it is argued that social inequities are behind experiences of intersectional stigma, GBV and other factors associated with sexual health risks among WOST. These are the ones that need to be primarily addressed.

Power is key in these discussions, as it is at the core of social inequities. The sociologist Max Weber was one of the first to theorise about power. Based on a translation and analysis by Wallimann, Tatsis, and Zito (1977), Weber's definition of power is as follows: *"within a social relationship, power means every chance (no matter whereon this chance is based) to carry through the own will, even against resistance"* (Wallimann et al., 1977, p. 232). Another sociologist, Michael Mann (Mann, 1986) described social power as two-fold. First, that societies were *"constituted of multiple overlapping and intersecting sociospatial networks of power"*. Second, *"a general account of societies, their structure, and their history can best be given in terms of the interrelations of (...) the four sources of social power: ideological, economic, military and political"* (Go, 2013). WOST were not *in power*, neither of their lives, nor of their health. This lack of power was often attributed to the effects of drug use and drug-using lifestyles, by both WOST and CPs. This is however a partial explanation for WOST' disempowerment. Based on the Social-Ecological Model presented in this chapter (see Figure 12), it is clear that this disempowerment is associated with elements at different ecological levels. Most are associated with social inequities, from the internalised intersectional stigma to the structural neglect and violence.

Intersectionality Theory is a useful framework to explain the complexity of intersections between social identities, social inequities and health (Bauer, 2014; Bowleg, 2008; Crenshaw, 1989; S. L. Dworkin, 2005; Hancock, 2007; Hankivsky, 2012; N. Hsieh & Ruther, 2016; Kulesza et al., 2016; Purdie-Vaughns & Eibach, 2008; Shields, 2008; Townsend, 2008; Walby, Armstrong, & Strid, 2012; Warner, 2008). Intersectionality Theory was developed in the context of sexism and racism research, after the concept of 'intersectionality' was first introduced by Crenshaw (1989). After almost three decades, Intersectionality Theory is now widely used in research on minority groups such as women, LGTBQ+ populations, PLHIV, PWUD, ethnic minorities and other marginalised

populations (Chambers et al., 2015; Earnshaw, Smith, Cunningham, & Copenhaver, 2015; Lacombe-Duncan, 2016; Logie, James, Tharao, & Loutfy, 2011; Loutfy et al., 2012; Sangaramoorthy, Jamison, & Dyer, 2017; Wagner, Girard, McShane, Margolese, & Hart, 2017). Intersectionality is concerned about unique experiences of social isolation and exclusion resulting from the convergence of different marginalised identities (e.g., female gender and PWUD). Intersectionality does not refer to the quantitative "accumulation" of marginalisation. It is rather an approach to explore and understand the qualitatively unique experiences resulting from intersecting sources of marginalisation. Previous research on health promotion has been informed by Intersectionality Theory, including in the area of HIV prevention (Chambers et al., 2015; Earnshaw et al., 2015; Lacombe-Duncan, 2016; Logie et al., 2011; Loutfy et al., 2012; Sangaramoorthy et al., 2017; Wagner et al., 2017)

Intersectionality has already been discussed in this PhD thesis (see Chapter 4, page 97). In this chapter, this theoretical framework is taken forward into understanding sexual health risks among WOST more broadly and in-depth. Intersectionality helps us understand the impact of pertaining to social groups that are stigmatised and made invisible within society (Purdie-Vaughns & Eibach, 2008). Also how these intersections are at the core of STI/BBV risk among WOST. A discussion on the main social inequities experienced by WOST – poverty and gender inequities – and sexual health is necessary.

9.1.2.1. Poverty: the unequal distribution of resources

Poverty refers to the lack of access to social, economic or political resources, or the inability to use available resources. Poverty is a reflection of social inequities, of the unequal distribution of social, economic and political power. There are certain social groups that are more likely to experience both social inequities and poverty. Among these groups are women (Alcock, 2006; Cohen, 1994) and people living with a chronic condition, including HIV (Kalichman et al., 2006; McMahon, Wanke, Terrin, Skinner, & Knox, 2011; Probst, Parry, & Rehm, 2016; Wiewel et al., 2016; Yun, Govender, & Mody, 2001). There is also a well-reported link between poverty – generally framed as lower socio-economic status –, general health and mortality (Dahlgren & Whitehead, 1991; Mackenbach et al., 2008; D. S. Morrison, 2009; Pampel et al., 2010; Schanzer et al., 2007; World Health Organization, 2014).

'Aporofobia' (aporophobia in English) was the Spanish word of the year in 2017[20]. It is a term introduced by the Spanish philosopher Adela Cortina Orts (Cortina, 2000, 2017). Its meaning represents an unavoidable reality: the invisibility, exclusion and repudiation of those who are *poor*. Something that became clear conducting this research was that aporophobia was experienced by WOST, especially those living in situations of homelessness. Due to WOST's lack of social,

[20] Words are chosen every year based on their relevance to social, cultural and political actuality and their linguistic interest.

economic and political resources, these women were rendered invisible within society, and most lived in situations of social exclusion and marginalisation. Making invisible and excluding those individuals in situations of poverty means that human rights and equity are not protected among those that need resources the most. It also creates barriers to good health and access to health care services.

Homelessness was relatively prevalent among WOST. Many were living off benefits as few had permanent jobs that allowed them to sustain themselves. Other sources of income that were mentioned by participants included transactional sex working and shoplifting. However, poverty among WOST should not only be defined by their income or employment status. It also needs to be defined through the lack of access to social resources and social engagement in their communities and wider society (e.g., political decisions) (Burchardt, Le Grand, & Piachaud, 2002). Engaging in these activities, and especially selling sex, added an extra layer of complexity in WOST's lives. This was due to the exposure to legal problems, experiences of intersectional stigma, and higher vulnerability to experiencing GBV (among women in transactional sex). The social exclusion and invisibility of WOST was even greater for women that had multiple intersecting stigmatised identities. It may be that intersectional stigma also increases the chances for living in poverty, as it creates greater barriers for accessing resources (e.g., health services).

The relationships between *social capital*[21] and health can also provide an explanation of *how* inequities in the distribution of resources are associated with health (Eriksson, 2011; Hawe & Shiell, 2000). There has been a growing interest in social capital in health promotion in the last decades (Bourdieu, 1986; Coleman, 1988; Eriksson, 2011; Hawe & Shiell, 2000; Portes, 1998). Social capital fits well within social-ecological models of health, as the one presented in this chapter (see Figure 12). As already mentioned, those living in situations of poverty (e.g., WOST) generally have poorer health. Based on the social capital approach, these differences are rooted in the breakdown of social cohesion and social exclusion of people living in situations of poverty (R. G. Wilkinson, 1996). This is not just a matter of income inequity but also of differences in power and social status (Muntaner & Lynch, 1999; R. G. Wilkinson, 1997, 1999). Social capital is concerned about social cohesion at different ecological levels, from family ties to community networks. It also highlights powerlessness as a key barrier for health promotion (Wallerstein, 1992). Empowerment, understood as "social capital" rather than an individual trait, is key to promoting health (Hawe & Shiell, 2000; Zimmerman, 1990, 2000).

In 2011, Malin Eriksson developed a model of individual and collective social capital that is useful to understand how poverty among WOST may be associated with their health (Eriksson, 2011). Eriksson differentiated between individual and collective social capital. While individual social

[21] The membership to social networks (individual social capital) and social cohesion (collective social capital) (Eriksson, 2011).

capital is related to social support and social norms, collective social capital is concerned about trust and collective action. Both individual and collective social capital influence individuals' engagement in health-protective and health-risk behaviours. For instance, social support and trust have been found to be associated with health-protective behaviours (Campbell & Jovchelovitch, 2000; Nieminen et al., 2013). In this PhD research, the lack of social support created barriers to STI/BBV prevention. The relationship between trust and sexual health outcomes was two-fold. Trust in sexual partners was generally linked to condomless sex to protect intimacy, even in situations of sexual health risks (Rhodes & Cusick, 2000). However, trust in health professionals seemed to promote WOST's access to (sexual) health services. Trust within sexual relationships is key to create intimacy and enjoyment in sexual pleasure, as well as feelings of belonging. The sense of belonging arising from trust may as well be associated with perceived social support. On the other hand, maintaining an illusion of trust in situations of GBV was a matter of survival and coping with violent situations. For instance, breaching trust with sexual partners could be a trigger of GBV or could even escalate situations of violence. The connections between social capital and health are still to be further explored, and especially for this specific population. Future research could focus on providing a deeper understanding of *why* and *how* elements of social capital may be associated with STI/BBV risk among WOST. Also, the links between poverty and social capital among this group.

Poverty is an important element of social inequities of sexual health among WOST. Thus, it needs to be considered within future research and public health strategies. Intersectionality approaches are also key to understanding the complex framework of vulnerable populations such as WOST. Poverty needs to be addressed, not just for health reasons but to decrease social and health inequities, and for social justice.

9.1.2.2. Gender inequities and gender-based violence: a discussion on the role of feminism

Feminist theorists have developed different perspectives on patriarchy – a system of social structures and practices in which men dominate, oppress and exploit women (Walby, 1990) – and explanations for gender inequities. According to radical feminism[22], sexuality is male-dominated (Coveney, Jackson, Jeffreys, Kay, & Mahoney, 1984; A. Dworkin, 1981; M. Evans, 1997; MacKinnon, 1982; Millet, 1977; Rich, 1977; Walby, 1990). This theoretical perspective explains how women are sexualised and reduced to sexual objects aimed at pleasuring men. Pornography, commercial sex and sexual violence result from this male-dominated sexuality. Similarly to the sexualisation of women, GBV in all its forms is socially constructed and based on patriarchal

[22] Radical feminism is a movement and framework of feminism originated in the 1960s with the Women's Liberation Movement. It focuses on women's oppression through sexuality, the ideology of femininity and women's reproductive capacity (Buchanan, 2018; M. Evans, 1997; Walby, 1990).

structures (Walby, 1990). Radical feminists have argued that GBV is a means for men's control over women (Brownmiller, 1976). It is then essential to understand that sexual violence is not a matter of sex but power. Women' subordination to men is historical and ingrained in most cultures and societies worldwide. Power is the main driver of these gender inequities.

Gender inequities and a feminist perspective are central to this study (see page 13). Gender inequities and GBV were part of the stories of most (if not all) WOST that participated in this research. WOST were dominated and oppressed by men, from abusers in their childhood to drug dealers and partners. WOST were powerless in situations of violence, and over changing patriarchal relationships. This defencelessness could be increased due to neglect from the social and health systems. For instance, reporting situations of violence to the authorities was commonly not enough to stop GBV. This seemed to perpetuate WOST's disempowerment, and sense of worthlessness and helplessness. This is one the reasons why views of GBV need to shift from a view that GBV is an individual experience to one that also takes into account how these experiences are embedded within the context of patriarchal societies. It is also important to question whether WOST, and other women in situations of marginalisation and social exclusion, are included in feminist movements.

Intersectionality has been an important part of third-wave feminism[23] (E. Evans, 2015; McCall, 2005; Shields, 2008). It is also relevant for this PhD thesis as findings suggested the need to apply intersectionality approaches to explain sexual health risks among WOST. For instance, homeless women and women engaging in transactional sex were more vulnerable to GBV, compared to other WOST. This could be because of the intersection of poverty and gender inequities. Patriarchal views on sexuality and women lead to the objectification of women. Transactional sex workers and homeless WOST seemed to be deemed as *the underclass*. As women themselves explained, they were dehumanised and treated as sexual objects by most men.

Feminist theorists have claimed the need to include gender inequities in the agendas of politicians and policymakers (E. Evans, 2015; M. Evans, 1997; Walby, 1990, 1997). Historically, feminist movements have taken actions to incorporate women within the social system. In the last century, these have mainly been the suffragette movement (Pankhurst, 1977) and the abortion and reproduction rights moment (E. Evans, 2015). Despite the advances made, feminist movements are still focusing on increasing women's visibility into policies that ensure women's rights over their bodies.

[23] Feminist movements since 1990s until 2010s. First wave feminism began in the mid-19th century and predominantly focused on women' suffrage. Second wave feminist began in 1960s-1970s and was centred in reaching gender equity through women's social and economic participation. Third wave feminism started in the 1990s and focused on intersectionality and challenging the concept of femininity. It also aimed at re-framing the ideas of second wave feminism, usually over-emphasising the experiences of white upper-middle class women and neglecting the voices of other women.

For this PhD, the reproductive health and sexual liberation movements are the most relevant. Sexual and reproductive health policies appear to still be embedded within patriarchal structures of sexuality and they are still violating women's human rights. For instance, despite the efforts of some researchers in the last few years to develop hormonal contraception for men (Behre et al., 2016; Nieschlag, 2005), preventing pregnancy is still a woman's issue. This has been argued to be partly due to the reluctance of the pharmaceutical industry to invest in developing male hormonal contraceptives (Nieschlag, 2005). Sexual and reproductive health rights are still disregarded, as decisions over women's bodies are mostly made by male-dominated governments. Donald Trump's current government (2017 -) in the United States is a clear example of this. Trump's government has, for instance, limited the availability of contraceptives and restricted the access to abortion. Women are also still carrying the burden of preventing pregnancy through "family planning" methods that are often holding them responsible for pregnancy prevention. Even condoms are male-constructed technologies that prevent women, in many cases, to make decisions to protect their sexual and reproductive health. Female condoms have been on the market for decades now, but these are still under the radar (Hoffman, Mantell, Exner, & Stein, 2004; Maksut & Eaton, 2015; Marfatia, Pendya, & Mehta, 2015; Sakondhavat, 2002; Vijayakumar, Mabude, Smit, Beksinska, & Lurie, 2006). There are several barriers to using female condoms, including women perceiving them as questionably effective and their high economic cost compared to male condoms. Taking a wider stance, female condoms are rarely displayed in selling points (including community pharmacies), or advertised in commercial and public health campaigns. Historically, they have not been as targeted in sexual health promotion programmes, compared to male condoms (A. Peters, Jansen, & van Driel, 2010; Public Health England, 2017b). All these were evident through this research and were barriers for WOST taking control over their sexual health. Female condoms, together with dental dams (Ritchers & Clayton, 2010) and even PrEP (Baeten et al., 2012; Choopanya et al., 2013; McCormack et al., 2016) should be made accessible for vulnerable populations such as WOST.

Gendered social constructions of sex and sexual health are also relevant to this discussion. As already discussed, women are sexualised and often given value based on the sum of their body parts. Women are often socially seen as male possessions for the benefit of male's sexual pleasure and social status. This was not an exception for WOST. Their narratives commonly included men's sexualisation and objectification of women. Sexual violence was alarmingly prevalent. Perpetrators were family members, friends, romantic partners, sexual partners, transactional sex clients, drug dealers and strangers. Equal relationships with men were scarce. Another common type of GBV was sexual exploitation. Based on participants' narratives, WOST were commonly "introduced" to transactional sex by drug dealers or their romantic partners. This was often to pay debts to drug dealers, and to sustain drug use for WOST but also their romantic partner's habit. For WOST, transactional sex was perceived as "easy money". Yet the consequences of engaging in transactional

sex were often life shattering for WOST. The decriminalisation of transactional sex was advocated in the first publication included in this thesis (see Chapter 4 page 97). In this final chapter it is emphasised that decriminalisation may not an option for situations of sexual exploitation (as for WOST), and that decriminalising sex work (incl. transactional sex) could contribute to the maintenance of patriarchal social structures.

There is much work to do for gender equity and to, for once, eliminate GBV. Part of this work is the need to involve politicians and policy makers, so that they shape the health and educational systems in a way that equity can be attained.

9.1.2.3. Addressing social inequities of health

Intersectionality Theory helps us understand WOST's experiences of membership to stigmatised and marginalised groups. This is *categorical intersectionality*, commonly used by psychologists applying Intersectionality Theory to their work (Cole, 2008). There is also the need to focus on *political intersectionality*, an approach that addresses political and organisational aspects of pertaining to multiple subordinate identities (Cole, 2008). This relates to the organisation and policy levels, but also social movements such as the feminist movement today.

Experiences of WOST were shaped by their membership to several marginalised and stigmatised groups: women, PWUD, transactional sex workers, people living in situations of homelessness, and people living with an STI or a BBV. Intersectional stigma has already been discussed as having a great influence on WOST' social identity. In turn, the way that WOST perceive themselves has a significant impact on their sexual health. Experiences of social exclusion experienced by WOST have clear links with their feelings of worthlessness, powerlessness and helplessness. How can WOST perceive their worth if they feel dehumanised? How can WOST feel empowered to change their situation if they feel that they are not worth changing it? How can they, in this context, be empowered to protect their sexual health? How can WOST feel supported if the social, economic and political systems are rendering them invisible and neglecting their needs? This is a very complex cycle that has great implications for health promotion.

It is generally assumed that people want to stay healthy, but it is also obvious that we all do not always protect our health. For WOST this was even more complicated as data from this study suggested that they often assumed illness, disability and death as part of their destiny. Most of us may fear illness, disability and death as these may mean the abandonment of ourselves, those that we love and the lives that we know. It means changing our realities to the unknown. For WOST, this unknown was not necessarily perceived worse than their current situation. The prospective of something better was just not an option in most cases. This is a sad and challenging reality that cannot (and must not) be omitted when promoting health among this population group.

Learned Helplessness Theory (LHT) is useful to explain WOST's feelings of powerlessness and helplessness at the individual-level. LHT was first developed based on experiments with laboratory animals (Overmier & Seligman, 1967; Seligman, 1972; Seligman & Maier, 1967). Since then, LHT has been widely used especially in experimental and clinical psychology (Maier & Seligman, 2016). According to LHT, individuals that are continuously exposed to unavoidable traumatic events become passive in making actions to prevent future trauma. This is due to the potential unavoidability and uncontrollability of these traumatic events (learned helplessness). Despite the individual-level focus and grounds on behaviourism of the LHT, it is still a valuable approach to explain WOST's behaviour in the context of this research. Social inequities are again the core issue, as the predisposition of WOST to experiencing trauma (e.g., GBV), and the impact on sexual health, have their roots in the lack of social equity. In turn, experiencing social inequities is a key factor for experiencing intersectional stigma, one of the main determinants of health inequities (Hatzenbuehler, Phelan, & Link, 2013). This is where the main efforts need to be focused on, for social justice and to improve sexual health among WOST.

Addressing social inequities is then key to promoting sexual health among WOST. The social inequities experienced by WOST suggest the need for urgent action to ensure human and health rights. And it seems that changes need to occur in the social, economic and political systems in order to ensure that the rights of WOST are being protected. This could facilitate promoting health, including the prevention of STIs and BBVs. Two sources of inequity, poverty and gender inequities, have been discussed in this PhD thesis. Other sources of inequity should be explored within this population in future research. Main areas that could be included in the intersection of social inequities are related to sexual orientation (homophobia), transsexuality (transphobia), race/ethnicity (racism), social class (classism) and age (ageism).

The need to focus on social inequities of health was already highlighted decades ago (Dahlgren & Whitehead, 1991; McKeown, 1976). Social inequities of health are still within the public health's agenda today (Arcaya, Arcaya, & Subramanian, 2015; Barreto, 2017; Braveman & Gottlieb, 2014; Braveman et al., 2011; Mackenbach, 2012; Mackenbach et al., 2008; World Health Organization, 2014). Despite the efforts and progress made, current health policies appear to be failing in addressing the core of the problem (i.e., lack of social and health equity). We therefore need equity-oriented health policies that address these pressing issues. Dahlgren and Whitehead (1991) proposed a model of the main determinants of health that need to be addressed by policy and public health strategies (see Figure 13). They stated that, despite the influence of individual-level determinants such as gender or age, these factors were not controllable thus should not be the focus of public health efforts. Each of the other layers in this model could be addressed by policy at different levels (Dahlgren & Whitehead, 1991):

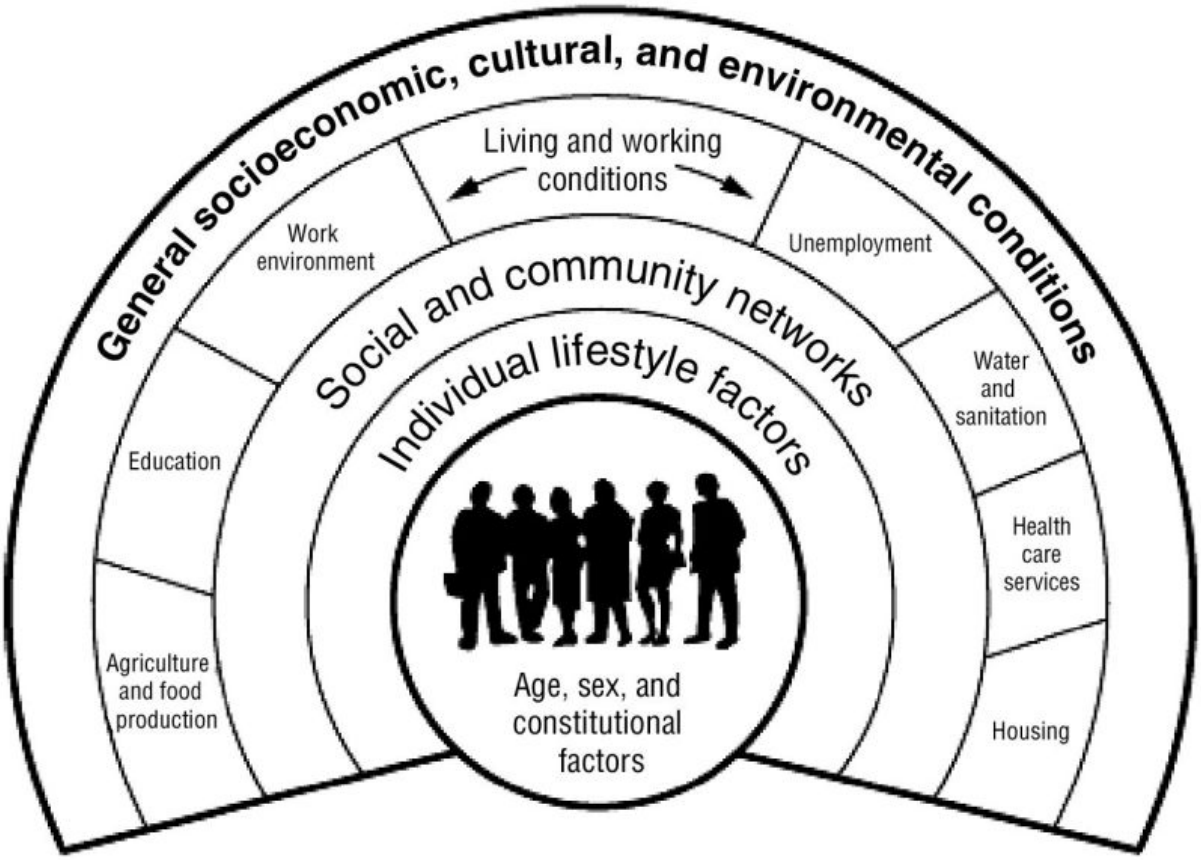


Figure 13. The Determinants of Health, adapted from (Dahlgren & Whitehead, 1991).

1. Policy Level 1: aimed at structural changes (e.g., economic strategies).
2. Policy Level 2: aimed at improving living and working conditions through healthy public or business strategies (e.g., health services).
3. Policy Level 3: aimed at strengthening social and community support (e.g., social support).
4. Policy Level 4: aimed at influencing individual lifestyles and attitudes (e.g., sexual health education).

Apart from policy changes, it is important to address social inequities of health developing and implementing interventions at multiple social-ecological levels. This PhD research calls for public health strategies that incorporate multiple elements at different social-ecological levels, including shifts towards equity-oriented policies. These strategies need to however ensure personal freedom and autonomy by *enabling* rather than *restricting* choice (Barnett, Ogden, & Daniells, 2008; Department of Health, 2010; Nuffield Council on Bioethics, 2007). Also, interventions targeting vulnerable populations (e.g., WOST) need to pay careful attention not to increase stigmatisation towards these vulnerable groups (Nuffield Council on Bioethics, 2007).

This PhD research presents suggestions for the design of a pharmacy-based sexual health service for WOST that also considers addressing social inequities of health (see Chapters 6-8). A discussion on the development of this service is available in the following sections of this chapter.

9.1.3. The Design of a Sexual Health Service

The main aim of this research was to explore the opportunities for developing a sexual health service for WOST in community pharmacy. This section offers a critical review of the main findings in relation to this objective.

The question now is: What can be done in community pharmacy? What can CPs do with such a complex picture? As already discussed, a single public health intervention or health service cannot cover all aspects that need to be addressed to reduce sexual health risks among WOST. However, any change and development in the sexual health services available for WOST can be valuable. The findings from this PhD research suggest that CPs could actually have an important role in promoting sexual health among WOST. As highlighted in previous chapters, there are however barriers that need to be considered. There is still *something* that CPs can contribute to in promoting the sexual health of WOST. A discussion on these barriers has already been presented in Chapters 5-8. In this chapter, these barriers are framed within the Social-Ecological Approach.

One of the most important barriers highlighted in this PhD research was the prevalence of negative and stigmatising attitudes towards WOST among CPs. The case for addressing intersectional stigma towards WOST has already been presented in this thesis. Intersectional stigma towards WOST is also maintained through drug use, and general social inequities experienced by this group of women. Despite accessing drug services appeared to be beneficial for some women taking part in this research, there was not a clear link between accessing services for drug use (i.e., OST) and improved sexual health. Future research could focus on exploring the role that accessing health services can have on reducing of sexual health risks among WOST and improving sexual health outcomes.

Previous research has suggested multiple factors to be associated with drug use, from biological to socio-structural factors. Theoretical approaches to *addiction* – to a substance or a behaviour (e.g., gambling) – have however been dominated by behavioural and biomedical sciences. These explanations of addiction have been restricted to the role of impulses, motivation, lack of self-control, and classical and operant conditioning (West, 2013). These are again reductionist approaches that fail to acknowledge the complexity of factors associated with drug use, and other related issues (e.g., sexual health risks among PWUD). What about the role of GBV? What about the day-to-day experiences of intersectional stigma? What about the lack of services addressing the needs of drug-using populations? What about social isolation and exclusion?

It is undeniable that there are important physiological and psychological factors to drug use. But widening this perspective is crucial to understanding and addressing drug use, as well as social and health-related harm (e.g., sexual health) effectively. Comprehensive theories of addiction, such as the Excessive Appetites Model, have attempted to provide a broader concept of what constituted addiction (Orford, 1985, 2001). However, this model still places more importance on elements of self-control and habit formation and less on social structures and political systems. This is an example of theoretical approaches that have aimed at "ticking the box" of including social factors in their models. They still offer limited explanations by merely including *opportunity* (e.g., availability of heroin in a community) or *external stimuli* as environmental elements of drug use (West, 2013). There are other elements such as social norms, policies or the economy that should be considered. Other theoretical models have provided population-level explanations for addiction, such as Social Network Theories, Economic Models, Communication and Marketing Theories, and Organisational Systems Models. Yet again, not much attention has been placed on these theories in comparison to other individual-level theoretical frameworks (West, 2013).

Dominant behavioural and biomedical explanations of drug use may be having a great negative impact on the stigmatisation, social invisibility and exclusion of WOST. These understandings of drug use were apparent in the narratives of most CPs. Neglecting the role of socio-structural factors maintains the structures that sustain the social and health problems that we are facing today. This neglect also contributes to sustaining stigmatising attitudes towards those that are living in situations of marginalisation, including WOST. As already discussed in this chapter, social inequities are at the core of sexual health risks among WOST. Community pharmacy-delivered interventions could be involved in achieving health equity for WOST (T. J. Brown et al., 2016).

Changes in the training of CPs should also be attained to promote a wider understanding of drug use and other related issues (e.g., STI/BBV sexual transmission) among CPs. Improvements in training should also aim at increasing CPs's understanding on how their own attitudes can have a crucial role in (sexual) health promotion among WOST. Not accounting for the social and cultural conditions of WOST may actually sustain power inequities in CPs-WOST relations (Aronowitz, Deener, Keene, Schnittker, & Tach, 2015; Bourdieu, 1977). Based on social capital approaches, health professionals need to be conscious of how they work with their patients and avoid *"reinforcing status hierarchies and the oppression of some groups by others"* (Hawe & Shiell, 2000). It is then crucial that CPs become aware of the social inequities experienced by WOST and the dynamics of power that can occur in their interactions with them (McDonald, Jayasuriya, & Harris, 2012; Nimmon & Stenfors-Hayes, 2016).

Although some CPs were understanding and compassionate, intersectional stigma towards WOST was also apparent in the narratives of CPs. Something to consider is that CPs taking part in

this PhD research were already interested and involved in the care of WOST and other PWUD. Therefore, it may be that CPs in this research held more positive attitudes in comparison with other CPs that did not participate. The prevalence of CPs' stigmatising attitudes towards WOST seems again to be a reflection of the social inequities that WOST experience. These negative attitudes are also important barriers to STI/BBV prevention. Addressing social inequities could then also shape the attitudes of CPs towards WOST. This is indeed a challenge but could greatly improve WOST's access to pharmacy services. Also, how these services are delivered and their impact on sexual health outcomes, wellbeing and health equity.

Communication on sensitive topics such as sex and sexual health is not an easy task. This was one of the challenges that both CPs and WOST thought that needed to be addressed in community pharmacy. Trust and privacy were key facilitators to engaging in discussions on sexual health due to the sensitivity of the topic. An important aspect to consider, again taking a social-ecological perspective, is the taboo of sex and sexual health. Through history, sex has been framed as dangerous and corruptive pleasure *"that seduced one's mind"* (Dabhoiwala, 2012). Religion has had a major role in framing sex as an unclean and loathsome practice that was only morally allowed for reproductive purposes in heterosexual married couples. Throughout the centuries and even today, there have been punishments for socially condemnable sexual acts, from public shaming to executions. In the history of sex, women have always been more vulnerable to such punishments and social shaming (Dabhoiwala, 2012). Despite the fact that attitudes towards sex have changed, sex is still a taboo topic that can generate feelings of shame. It can be seen as an inhuman practice that has long been framed as a *risk* (Bauman, 2003), rather than a natural and healthy practice. The historical secrecy around sex is reflected in the difficulties of CPs (and also WOST) have discussing sexual health. Also, sexual health among WOST often implies discussing other sensitive and taboo topics such as GBV (including child sexual abuse), transactional sex, homelessness, STI/BBV status, and drug use.

Changing these taboos means shifting society's attitudes towards sex and other topics discussed in this PhD thesis. This is a great undertaking that again requires changes at different ecological levels. Suggestions may include advances in CPs-WOST communication through improved professional training, facilitate trusting and open environments within communities to promote healthy sex and relationships, and changes in educational policies that incorporate a more open and comprehensive sex and sexual health education for children and teenagers. Changes in how CPs normalise and discuss sex and sexual health would be beneficial to generate trust and openness, facilitating the access of WOST to pharmacy-delivered sexual health services.

Improving drug policies can also be key to challenge societal and cultural views of drug use and PWUD. Strategies to attain these improvements should consider factors at different social-

ecological levels, to promote compassionate and non-judgmental attitudes towards PWUD, and a holistic and socio-structural perspective on drug use, towards the de-stigmatisation of drug use.

Improving communication in community pharmacy could also reduce time constraints (Nass, Banerjee, Efferth, & Wohlmann, 2016) and improve clients' loyalty (Antunes, Gomes, & Cavaco, 2015). Refining communication skills among CPs can be done effectively using simulated patient methods (Mesquita et al., 2010), and delivering communication courses using videos and offering constructive feedback to students (Jin, Choi, Kang, & Rhie, 2018). This would not only improve effective and positive communication, but also increase CPs's confidence to discuss sensitive topics (Jin et al., 2018). All CPs in this study expressed that working with WOST was challenging. This was partly because of the gaps in communication and CPs's lack of training and confidence in dealing with conflict. Improving CPs's confidence in communicating with WOST is also important in dealing with potential conflicts in community pharmacy. Together with these advances, adopting a patient-centred approach should also be a priority to improve the interactions between CPs and WOST. This is important in order to build trust and health-related outcomes (Beach, Keruly, & Moore, 2006). It could also improve access to health services by reducing health inequities (Fenton et al., 2018).

There were important structural barriers, apart from intersectional stigma and lack of communication. These were time and workload constraints, privacy and confidentiality, and financial constraints. All of these are commonly reported barriers in community pharmacy (Arnet, Gudka, Salter, Hersberger, & Clifford, 2018; Donovan & Paudyal, 2016; Eades et al., 2011; Laird, Hunter, Sardar, Fitzgerald, & Lowrie, 2016; Laliberté, Perreault, Damestoy, & Lalonde, 2012; Luger et al., 2000; L. Michie et al., 2016; Rose, Lutnick, & Kral, 2014; Strang & Sheridan, 2003). These barriers are related to how community pharmacies are structured and policed. A Social-Ecological Approach and suggestions from Dahlgren and Whitehead (1991) (see Figure 13) to address social inequities of health at the policy level offer a useful framework to addressing these barriers. These approaches could be useful to develop policies and guidelines in community pharmacy to overcome the structural challenges here discussed.

Despite the barriers discussed, both WOST and CPs taking part in this study welcomed the development of new sexual health services in community pharmacy. It then seems that community pharmacies are well placed to deliver sexual health services to WOST and address *some* of the sexual health needs of WOST, even if not all (e.g., GBV). This is due to the limitations in community pharmacy (e.g., time constraints) and the role that CPs are able to undertake (e.g., due to their professional training). Improvements in professional training for CPs and changes in policy could reduce the barriers identified. As already mentioned, developing interventions at multiple ecological levels would be necessary to address all factors of sexual health risks among WOST identified in this PhD research.

The service goals and outcomes for the pharmacy-delivered sexual health service are presented in Chapter 8 (see page 190). These are focused on increasing the availability of sexual health services for WOST. More specifically, this service would promote sexual health screening and treatment uptake. Table 14 in Chapter 8 (see page 197) includes a brief justification of the reasons why particular determinants of health could (not) be addressed by the pharmacy-based sexual health service. It is important to understand that decisions on the inclusion and exclusion of determinants were not *just* based on priorities for WOST. They were also based on what was considered acceptable and feasible within the community pharmacy setting. It is crucial to bear in mind ethical implications in public health strategies (Kass, 2001). This chapter highlighted the need to address social inequities experienced by WOST as these are behind WOST's vulnerability to STIs and BBVs. Even if not as a whole, the sexual health service designed in this PhD research would make a contribution to attaining equity *for* WOST.

9.1.3.1. Next stages for service design

The suggestions for service development in this PhD thesis correspond to Step I and Step II of IM (Bartholomew Eldredge et al., 2016). Using this approach, the next stages of service design would include:

1. The design of the service (Step III)
    a. Themes, components, scope, and sequence
    b. Theory- and evidence- based change methods
    c. Design of practical implications to deliver change methods
2. The production of the service (Step IV)
    a. Refine the structure and organisation of the service
    b. Prepare materials for the service
    c. Draft messages, materials and protocols
    d. Pretest, refine and produce materials
3. The implementation of the service (Step V)
    a. Identify the service users (adopters, implementers and maintainers)
    b. State the outcomes and performance objectives for using the service
    c. Constructing matrices of change objectives for using the service
    d. Design the implementation of the service
4. The evaluation plan (Step VI)
    a. Write questions for evaluating the effect and process of the service
    b. Develop indicators and measures for assessing the service
    c. Specify the design for the evaluation
    d. Complete the evaluation plan

Completing the design, implementation and evaluation of the service would require a high amount of resources, including funding and professionals working on this project. The findings from this PhD will inform the design of a service aimed at improving the access of WOST to reproductive and sexual health services through community pharmacy. Funding applications will be submitted in order to undertake this research.

9.2. Defining Sexual Health: An Equity and Human Rights Approach

Another point worth discussing is the importance to define 'sexual health' within research more broadly. Sexual health is often exclusively associated with STIs and BBVs. Being in *good* health is however not just about ill-health, but about promoting health and wellbeing in all its dimensions. Defining sexual health then needs to include emotional, mental and social wellbeing in relation to sexual experiences, rather than the mere absence of STIs and BBVs (World Health Organization, 2006). Equity and human rights should also be incorporated into the definition of health and sexual health (International Planned Parenthood Federation, 2008; UN General Assembly, 1948; United Nations, 1994; World Association for Sexual Health, 2014). Sexual health involves the right to pleasurable and *safe* sexual experiences that are free of coercion, violence and discrimination (World Health Organization, 2006). There are several principles with regards to sexual health that are a matter of human and sexual rights (Miller, Kismödi, Cottingham, & Gruskin, 2015). Universality and inalienability are at the core of these principles. These refer to the fact that human and sexual rights are universal. Every single human being is born with them and these rights cannot (and should not) be taken away. Human and sexual rights are also indivisible and interdependent. This means that all rights – political, civil, social, cultural and economic – are equally important and they cannot be understood as separate entities; the denial of one right usually compromises another. For instance, denying access to sexual health education may also mean denying the right to make informed decisions about one's sexual health. A third human and sexual rights principle is non-discrimination as a tool for reaching equity and ensuring sexual health. Any unequal treatment of certain groups or individuals (e.g., women) violates human rights and impairs equity, as well as it may compromise the access to health at its highest possible standard. Reaching for equity is a matter of social justice and a call for humanity. Reaching for equity concerns us all, and so it matters in health and social research, especially when working with socially excluded and marginalised communities, such as women on opioid substitution treatment (WOST) (Braveman, 2014; Braveman & Gruskin, 2003a, 2003b; Braveman et al., 2011).

Despite a broader definition of sexual health was considered in this research, this understanding of sexual health emerged throughout the research rather than in the research design process. The research aims and objectives were really based on a definition of sexual health as the presence or absence of disease when the study was designed. However, this perspective evolved so

that the findings and discussions of this research were based on a broader approach to sexual health among WOST.

Future research in this area should also consider framing the aims and objectives in line with the Millennium Development Goals (United Nations, 2015a) and the 2030 Agenda for Sustainable Development (United Nations, 2015b). Two of the 17 goals in this report would be especially relevant to this research. These are 'ensuring healthy lives and promoting well-being for all at all ages' (Goal 3), and 'achieving gender equality and empowerment of all women and girls' (Goal 5). These goals have already been reflected on global strategies for STI and BBV reduction (UNAIDS, 2015, 2016a; World Health Organization, 2016a, 2016b, 2016c, 2016d). Also, that to offer recommendations to address the health inequities experienced by this group of women would be incorporated within the aims. It should not be just a matter of preventing disease or promoting health, but also a call for social justice, and human and sexual (health) rights.

9.3. Strengths, Limitations and Future Directions

There were strengths and limitations to this research that need to be considered. This study was the first attempt to develop a sexual health service for WOST in community pharmacy. One of its strengths was the use of qualitative methods. These allowed for a comprehensive exploration of participants' experiences from their own perspectives, which led to an in-depth understanding of sexual health risks among WOST. Using qualitative methods also provided an opportunity to explore the role of CPs promoting sexual health among WOST more broadly, and to initiate the design of the service. Despite being highly time consuming and complex, using FA allowed for the rich and extensive data analysis required for this study. The use of IM was another strength of this study, as it served as a useful guidance to designing the pharmacy-based sexual health service.

Taking an equity, human rights and feminist approaches to this research was another of its assets. It was a goal of this research to contribute to reducing the social inequities of health experienced by WOST, and to focus on social justice and human rights in health. The findings from this study and the approach taken could inform future public health strategies. Approaching research from these values fitted well with a bottom-up approach that focused on what was important to participants, and on their constructive meanings of their own experiences. In line with this, this PhD study aimed at co-designing a sexual health service with its service users (i.e., WOST) and service providers (i.e., CPs). This could potentially improve the acceptability and effectiveness of the service if implemented.

This PhD research focused on the experiences of WOST (and WHOD for Study 1), and did not include other women using drugs. Even if this could be seen as a limitation, some of the experiences of WOST could be representative of the realities of other women using drugs. This then

becomes a strength, as it could be that this study could inform future research and the development of sexual health services that include other women using drugs.

There is the possibility of having missed other important elements associated with sexual health among WOST due to the exploratory nature of this PhD, especially as the aims and objectives were not really framed within a broader definition and understanding of sexual health. On the other hand, there is the possibility that participants (both WOST and CPs) had underreported some of their experiences or negative views (e.g., of CPs towards WOST). This research could then have lessened the complexity of interrelations between sexual health-related factors. At the same time, aiming to take a comprehensive approach has been an ambitious and challenging undertaking. This was a challenge for identifying patterns in the data and making decisions for service design. Future research should keep focusing on the complexity of sexual health risks among WOST. Also, on exploring particular factors highlighted in this PhD (e.g., intersectional stigma). Related to this point, it would be relevant to consider other social inequities in future work such as racism, homophobia, transphobia, classism and ageism.

Another important limitation that should be acknowledged is related to the inclusion of HBV and HCV within this study. Viral hepatitis was included given the potential of the sexual transmission of HBV and HCV. However, previous research has reported that the evidence of the sexual transmission of viral hepatitis is weak (Alary, Joly, Vinceletter, Lavoie, Turmel, Remis, 2005; Azeem, Taqweem, Ahmed, Wakil, 2011; Neumayr, Propst, Schwaighofer, Judmaier, Vogel, 1999; Shepards, Finelli, Alter, 2005; Vandelli et al., 2004). Framing hepatitis transmission risk as both through injecting and sexual practices has also been highlighted as a factor that could perpetuate risk practices (Harris & Rhodes, 2013). In this study, the authors discuss that including sexual risks within public health strategies to prevent HCV could lead to the increase of risk practices. This is because people living with HCV and their sexual partners could decide to share needles if already engaging in condomless sex, if they perceived parenteral and sexual risk transmission to be equivalent based on public health messaging. It is then crucial to consider the inclusion of viral hepatitis prevention alongside STI/HIV prevention in future research and design of public health services.

Mixed-methods approaches could be useful to triangulate different sources and types of data. Including quantitative analyses could help to further explain the nature and type of relationships between factors (e.g., between experiencing intersectional stigma and accessing sexual health services). Applying the findings of this research to WOST in other communities within the UK and other countries would also be valuable for future research. Also, considering community pharmacies in other areas of the country and community pharmacies and health systems worldwide. Other methodological considerations are the way the focus groups were conducted and how data were

analysed (i.e., using QCA), as a more exploratory approach could have encouraged new and divergent views to arise.

Despite the usefulness of IM, using this or other approaches to develop health promotion programmes critically is another take-away message. It is essential to remember that these approaches are designed to offer guidance to develop services, but should be able to be adapted to each particular case. Even though IM was a useful and systematic approach to follow, it was rather prescriptive at times. At the same time, it was sometimes unclear how to undertake some of the tasks or make certain decisions for service development (e.g., deciding on determinants of health). However, IM is an evidence- and theory-based approach that allows for developing evidence- and theory-based health services, an essential criteria to plan health services (DiClemente, Salazar, & Crosby, 2011; Glanz & Bishop, 2010; S. C. Jones & Donovan, 2004). On the other hand, one of the reasons for using IM was its focus on incorporating social-ecological approaches. However, it appeared that IM gave more importance to individual-level determinants and could neglect the importance of socio-structural elements. In this study, this was a limitation that was addressed by using IM in a flexible manner rather than a rigid guideline. In line with this critique, the role of culture should also be incorporated in future service development to address social inequities of health more broadly (Airhihenbuwa, Ford, & Iwelunmor, 2014; Aronowitz et al., 2015; Asad & Kay, 2015; Napier et al., 2014; Singer, 2012; Singer, Dressler, George, & The NIH Expert Panel, 2016).

WOST seemed open to share their life experiences and views on service development. However, given the nature of the data, some women may have underreported some of their experiences. All participants were reassured that taking part in the study would not have any impact on their care, and all information would be kept confidential. However, some WOST may have not shared some of their negative views of health services, including community pharmacy. Similarly, social desirability needs to be considered when interpreting the data from CPs. Mixed messages of CPs regarding their own attitudes towards WOST were common in participants' narratives. This suggests that participants could have portrayed themselves more positively in their interactions with WOST, than they really were. Also, that CPs could have reported more positive views on their clients than they really held. It could also be that some CPs did not share more negative opinions on the development of the sexual health service. It could be that the responses from both groups were slightly biased due to the information that they had on the interviewer (e.g., if they knew that she was a psychologist or was a researcher at a Department of Pharmacy & Pharmacology). Future research should acknowledge these limitations and always explicitly ensure confidentiality and anonymity.

Whilst there is a certain analysis of the health system and policies in this thesis, this study has not directly focused on these structural factors. Policy analyses and the involvement of policymakers, stakeholders and other health and social care professionals working with WOST would be relevant for

future research. As introduced in Chapter 2 (see page 13), data analyses and discussions in this PhD thesis have been inevitably influenced by the researchers' values and subjective interpretation of the data. Despite this not being a limitation *per se* it is something that needs to be acknowledged in any research.

Very importantly, future research should aim at addressing social inequities of health among WOST. Efforts to develop new strategies to prevent STIs and BBVs among this group of women should also consider Social-Ecological Approaches and Intersectionality Theory. Gaps between research, policy and practice need to be bridged so that WOST' sexual health needs are addressed, and inequities are reduced.

9.4. Research Implications

The implications and impact of this PhD research have been illustrated in this chapter. There are important implications for research, policy and practice. The previous section has highlighted the need for continuing the research in this area and implications for future research. The focus of this section is on implications for policy and practice.

There are also important implications for policy. These should consider Intersectionality (Crenshaw, 1989) and Social-Ecological approaches (Bronfenbrenner, 1994; Dahlgren & Whitehead, 1991; McLeroy et al., 1988). Programmes for children may also be crucial in order to shift views on sex and sexual health. Improvements in these should aim at having open and honest discussions around sex and sexual health and tackle the taboo and stigma around these topics. The findings from this study also led to consider current legislation on transactional sex. Feminist discourses need to be incorporated to political debates around the criminalisation of transactional sex, to focus on eliminating GBV and gender inequities. Women are still second-class citizens and this research serves as a call for this to change. As this study highlighted, efforts should be made to face patriarchal systems and shift social and gendered norms in society. As for gender inequities and GBV, other important social inequities need to become a priority for the agenda of policymakers and public health professionals.

This PhD research also calls for the development of community interventions that foster healthier environments and increase social capital (Bourdieu, 1986; Coleman, 1988; Eriksson, 2011; Hawe & Shiell, 2000; Portes, 1998). Community-level interventions would also be key in shaping attitudes and social norms in relation to the sensitive and taboo topics addressed in this PhD thesis. These changes could be greatly beneficial in how WOST relate to themselves and the interactions that they have with other people around them. They could also, in turn, promote positive changes in policy and health services for this group of women.

This research could also have an important impact on the practice of health and social care professionals working with WOST, including community pharmacists. As presented throughout this thesis, it is important that professionals working with WOST recognise the complexity of their life stories. Also, that this has a deep influence on their health and what seem to be "their health decisions". Blaming and stigmatising attitudes need to be replaced by compassionate and empathetic responses.

9.5. Conclusions

The main aim of this study was to explore the opportunity of designing and implementing a sexual health service for WOST in community pharmacies in England. There were several objectives in order to attain this aim. These were 1) to identify and explore the factors associated with the heightened risk of sexual transmission of STIs and BBVs among WOST; 2) to explore the needs of WOST in relation to STI and BBV prevention; 3) to explore the potential role of CPs in preventing the sexual transmission of STIs and BBVs among WOST; and 4) to offer initial recommendations for the design of a sexual health service for WOST in community pharmacies in England.

This research highlighted the complexity of factors that are associated with sexual health risks among WOST. A Social-Ecological model was developed and included the multiple factors that are associated with sexual health risks at different ecological levels. Social inequities were discussed to be at the core of sexual health risks among WOST. The findings from this study directed our attention towards prevailing social inequities and how these are a concern for health promotion and public health. Joint actions are needed to tackle the barriers to include social and health inequities within the public health agenda. Very importantly, health services and public health strategies should be developed *for* those groups that are most vulnerable, such as WOST. In the end, equity is about giving the necessary resources to people as they need them. Equity needs for active listening and for wide-open eyes to the realities around us. This is what this research intended, to open ourselves to the realities of WOST, to bring us closer to what their needs are to promote sexual health.

More attention needs to be drawn towards the potential of community pharmacy in promoting health. Despite this being in the public health's agenda of the UK for several years now (T. J. Brown et al., 2016; Donovan & Paudyal, 2016; Public Health England, 2017e), there is the need for evidence- and theory-based services developed for community pharmacies. Barriers to promoting health in community pharmacy cannot however be neglected. Service development needs to aim at acknowledging and promoting socio-structural changes so that these barriers can be addressed. There also need to be changes in the education and training of CPs. These should aim at fostering non-blaming and non-stigmatising attitudes towards PWUD. They should also focus on acknowledging and tackling social inequities of health among WOST and other vulnerable groups. This study has

highlighted that CPs could play a role in promoting sexual health among WOST. However, pharmacy-based services could only address part of the complexity of factors associated with sexual health risks among WOST. Interventions at multiple social-ecological levels will be required to address the core factors identified in this study.

The conclusions from this PhD research all lead to the same *simple* idea. We need to remember that we are all human, despite of our biological sex, gender, use of psychoactive substances, sources of income, level of education, living conditions, health status, race, sexual orientation, place of birth (...). This research is a call for humanity, a call for equity and access to human rights. This will enable a move beyond current limitations of many public health strategies for WOST and other vulnerable populations. It will also enable us to build healthier societies that leave *no one* behind.

References

Aarons, S. J., Jenkins, R. R., Raine, T. R., El-Khorazaty, M. N., Woodward, K. M., Williams, R. L., . . . Wingrove, B. K. (2000). Postponing sexual intercourse among urban junior high school students—a randomized controlled evaluation. Journal of Adolescent Health, 27(4), 236-247. doi:https://doi.org/10.1016/S1054-139X(00)00102-6

Abbott, S., & Freeth, D. (2008). Social Capital and Health: Starting to Make Sense of the Role of Generalized Trust and Reciprocity. J Health Psychol, 13(7), 874-883. doi:10.1177/1359105308095060

Abraham, C. (2004). Using theory in research. In: Michie S, Abraham C, editors. Health psychology in practice. Oxford: BPS Blackwells.

Adedimeji, A. A., Hoover, D. R, Shi, Q., Gard, T., Mutimura, E., Sinayobye, J,, et al. (2015). Sexual behavior and risk practices of hiv positive and HIV negative Rwandan women. AIDS Behav; 19(7): 1366–78.

Agomo, C. (2018). Community pharmacists' contribution to public health: assessing the global evidence base. Clinical Pharmacist, 10(4). doi:DOI: 10.1211/CP.2018.20204556

Airhihenbuwa, C. O., Ford, C. L., & Iwelunmor, J. I. (2014). Why culture matters in health interventions: lessons from HIV/AIDS stigma and NCDs. Health Educ Behav, 41(1), 78-84. doi:10.1177/1090198113487199

Alary, M., Joly, J., Vincelette, J., Lavoie, R., Turmel, B., Remis, R. (2005). Lack of evidence of sexual transmission of hepatitis C virus in a prospective cohort study of men who have sex with men. Am J Public Health, 95, 502-505.

Albertin-Carbo, P., Domingo-Salvany, A., Hartnoll, R. L. (2001). Psychosocial considerations for the prevention of HIV infection in injecting drug users. Qual Health Res; 11 (1): 26–39.

Alcock, P. (2006). Understanding poverty (3rd ed. ed.). Basingstoke: Basingstoke : Palgrave Macmillan.

Allen, S., Meinzen-Derr, J., Kautzman, M., Zulu, I., Trask, S., Fideli, U., et al. (2003). Sexual behavior of HIV discordant couples after HIV counseling and testing. AIDS; 17(5): 733–40.

Altman, D. G. (1991). Practical statistics for medical research. London: Chapman and Hall.

Alto, W. A., & O'Connor, A. B. (2011). Management of women treated with buprenorphine during pregnancy. Am J Obstet Gynecol, 205(4), 302-308. doi:10.1016/j.ajog.2011.04.001

Alves, G. R., Goulart, R. A., Lara, F. I., Lucchese, L., & Vera, I. (2016). Inconsistent use of condom in non-injecting illicit drug users. Braz J Infect Dis, 20(2).

Amaro, H. (1995). Love, sex, and power: considering women's realities in HIV prevention. Am Psychol; 50(6): 437–47.

Amato, L., Minozzi, S., Davoli, M., & Vecchi, S. (2011). Psychosocial combined with agonist maintenance treatments versus agonist maintenance treatments alone for treatment of opioid dependence. Cochrane Database of Systematic Reviews(10). doi:10.1002/14651858.CD004147.pub4

Anderson, C. (2000). Health Promotion in community pharmacy: the UK situation. Patient Education and Counseling, 39, 285-291.

Anderson, S. (2007). Community pharmacy and public health in Great Britain, 1936 to 2006: how a phoenix rose from the ashes. J Epidemiol Community Health, 61(10), 844-848. doi:10.1136/jech.2006.055442

Annandale, E., & Hunt, K. (2000). Gender inequalities in health. US: Open University Press.

Ansaldi, F., Orsi, A., Sticchi, L., Bruzzone, B., & Icardi, G. (2014). Hepatitis C virus in the new era: Perspectives in epidemiology, prevention, diagnostics and predictors of response to therapy. World Journal of Gastroenterology : WJG, 20(29), 9633-9652. doi:10.3748/wjg.v20.i29.9633

Anstice, S., Strike, C. J., Brands, B. (2009). Supervised Methadone Consumption: Client Issues and Stigma. Substance Use & Misuse; 44(6): 794-808.

Antunes, P. L., Gomes, J. J., & Cavaco, A. M. (2015). How pharmacist-patient communication determines pharmacy loyalty? Modeling relevant factors. Res Social Adm Pharm, 11(4), 560-570. doi:10.1016/j.sapharm.2014.11.003

Aral, S. O., Over, M., Manhart, L., & Holmes, K. K. (2006). Sexually Transmitted Infections. In J. DT, B. JG, M. AR, A. G, C. M, E. DB, J. P, M. A, & M. P (Eds.), Disease Control Priorities in Developing Countries (2nd ed.). New York: Oxford University Press.

Aral, S. O., Padian, N. S., & Holmes, K. K. (2005). Advances in Multilevel Approaches to Understanding the Epidemiology and Prevention of Sexually Transmitted Infections and HIV: An Overview. J Infect Dis, 191(Supplement_1), S1-S6. doi:10.1086/425290

Arcaya, M. C., Arcaya, A. L., & Subramanian, S. V. (2015). Inequalities in health: definitions, concepts, and theories. Global health action, 8, 27106-27106. doi:10.3402/gha.v8.27106

Arnet, I., Gudka, S., Salter, S., Hersberger, K. E., & Clifford, R. (2018). Readiness of pharmacists and consumers for pharmacy-based chlamydia screening in Australia and Switzerland. Sexual & Reproductive Healthcare, 16, 138-153. doi:https://doi.org/10.1016/j.srhc.2018.03.006

Aronowitz, R., Deener, A., Keene, D., Schnittker, J., & Tach, L. (2015). Cultural Reflexivity in Health Research and Practice. Am J Public Health, 105, S403. doi:10.2105/AJPH.2015.302551

Asad, A. L., & Kay, T. (2015). Toward a multidimensional understanding of culture for health interventions. Soc Sci Med, 144, 79-87. doi:10.1016/j.socscimed.2015.09.013

Aspinall, E. J., Hawkins, G., Fraser, A., Hutchinson, S. J., & Goldberg, D. (2011). Hepatitis B prevention, diagnosis, treatment and care: a review. Occupational Medicine, 61(8), 531-540. doi:10.1093/occmed/kqr136

Attia, S., Egger, M., Müller, M., Zwahlen, M., & Low, N. (2009). Sexual transmission of HIV according to viral load and antiretroviral therapy: systematic review and meta-analysis. AIDS, 23(11), 1397-1404.

Atujuna, M., Newman, P. A., Wallace, M., Eluhu, M., Rubincam, C., Brown, B., & Bekker, L.-G. (2018). Contexts of vulnerability and the acceptability of new biomedical HIV prevention technologies among key populations in South Africa: A qualitative study. PLoS One, 13(2), e0191251. doi:10.1371/journal.pone.0191251

Auerbach, J.D., Smith, L.R. (2015). Theoretical foundations of research focused on HIV prevention among substance-involved women: a review of observational and intervention studies. J. Acquir. Immune Defic. Syndr. 69 (Suppl. 2), S146–S154.

Azeem, P. Taqweem, A., Ahmed, I., Wakil, F. A. (2011). Sexual transmission of hepatitis C virus in spouses of patients suffering from hepatitis C cirus. J Med Sci, 19: 152-155.

Baeten, J. M., Donnell, D., Ndase, P., Mugo, N. R., Campbell, J. D., Wangisi, J., . . . Partners Pr, E. P. S. T. (2012). Antiretroviral prophylaxis for HIV prevention in heterosexual men and women. N Engl J Med, 367(5), 399-410. doi:10.1056/NEJMoa1108524

Baker, J. (2013). Stay current with options for HIV prevention. Jaapa, 26(12), 14-20; quiz 25. doi:10.1097/01.jaa.0000437820.76526.41

Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioural change. Psychol Rev; 84: 191–215.

Baratosy, R., Wendt, S. (2017). “Outdated Laws, Outspoken Whores”: exploring sex work in a criminalised setting. Women’s Stud Int Forum; 62: 34–42.

Baral, C., Logie, C. H., Grosso, A., Wirtz, A. L., & Beyrer, C. (2013). Modified social ecological model: a tool to guide the assessment of the risks and risk contexts of HIV epidemics. BMC Public Health, 13(482).

Barnard, M. (2010). What is Framework?: NatCen

Barnett, J., Ogden, J., & Daniells, E. (2008). The value of choice: a qualitative study. British Journal of General Practice, 58(554), 609. doi:10.3399/bjgp08X330717

Barré-Sinoussi, F., Ross, A. L., & Delfraissy, J.-F. (2013). Past, present and future: 30 years of HIV research. Nature Reviews Microbiology, 11, 877. doi:10.1038/nrmicro3132

Barreto, M. L. (2017). Health inequalities: a global perspective. Cien Saude Colet, 22(7), 2097-2108. doi:10.1590/1413-81232017227.02742017

Bartholomew Eldredge, L. K., Markham, C. M., Ruiter, R. A. C., Fernandez, M. E., Kok, G., & Parcel, G. S. (2016). Planning health promotion programs : an intervention mapping approach (4th ed. ed.): San Francisco, California : Jossey-Bass.

Bauer, G. R. (2014). Incorporating intersectionality theory into population health research methodology: Challenges and the potential to advance health equity. Soc Sci Med, 110, 10-17. doi:https://doi.org/10.1016/j.socscimed.2014.03.022

Bauman, Z. (2003). Liquid Love: On the Frailty of Human Bonds. Oxford: Polity Press.

Beach, M. C., Keruly, J., & Moore, R. D. (2006). Is the quality of the patient-provider relationship associated with better adherence and health outcomes for patients with HIV? Journal of general internal medicine, 21(6), 661-665. doi:10.1111/j.1525-1497.2006.00399.x

Behre, H. M., Zitzmann, M., Anderson, R. A., Handelsman, D. J., Lestari, S. W., McLachlan, R. I. ,...Colvard, D. S. (2016). Efficacy and Safety of an Injectable Combination Hormonal Contraceptive for Men. The Journal of Clinical Endocrinology & Metabolism, 101(12), 4779-4788. doi:10.1210/jc.2016-2141

Bekker, L.-G., Beyrer, C., & Quinn, T. C. (2012). Behavioral and Biomedical Combination Strategies for HIV Prevention. Cold Spring Harbor Perspectives in Medicine, 2(8), a007435. doi:10.1101/cshperspect.a007435

Bell, A. V., Ompad, D., Sherman, S. G. (2006). Sexual and drug risk behaviors among women who have sex with women. Am J Public Health; 96(6): 1066–72.

Bendassolli, P. F. (2013). Theory building in qualitative research: Reconsidering the problem of induction. Forum: Qualitative Social Research, 14(1).

Berg, R. (2009). The effectiveness of behavioural and psychosocial HIV/STI prevention interventions for MSM in Europe: A systematic review. Euro Surveill, 14(48).

Billioux, V. G., Sherman, S. G., Latkin, C. A. (2014). Religiosity and HIVrelated drug risk behaviour: a multidimensional assessment of individuals from communities with high rates of drug use. J Relig Health; 53(1): 34–45.

Blankenship, K. M., Reinhard, E., Sherman, S. G., & El-Bassel, N. (2015). Structural Interventions for HIV Prevention Among Women Who Use Drugs: A Global Perspective. J Acquir Immune Defic Syndr, 69 Suppl 2, S140-145. doi:10.1097/qai.0000000000000638

Booth, R. E., Kwiatkowski, C. F., & Chitwood, D. D. (2000). Sex related HIV risk behaviors: differential risks among injection drug users, crack smokers, and injection drug users who smoke crack. Drug Alcohol Depend, 58, 219-226.

Børresen, M. L., Koch, A., Biggar, R. J., Ladefoged, K., Melbye, M., Wohlfahrt, J., & Krause, T. G. (2012). Effectiveness of the Targeted Hepatitis B Vaccination Program in Greenland. Am J Public Health, 102(2), 277-284. doi:10.2105/AJPH.2011.300239

Bourdieu, P. (1977). Outline of a theory of practice. Cambridge: Cambridge : Cambridge University Press.

Bourdieu, P. (1986). The forms of capital. In J. Richardson (Ed.), handbook of theory and research for the sociology of education. New York: Mcmillan.

Bourdieu, P. (1987). What makes a class? Berkeley J. Sociol. 32, 1–18.

Bourgois, P., Prince, B., & Moss, A. (2004). The everyday violence of hepatitis C among young women who inject drugs in San Francisco. Hum Organ, 63, 253.

Bowleg, L. (2008). When Black + Lesbian + Woman ≠ Black Lesbian Woman: The Methodological Challenges of Qualitative and Quantitative Intersectionality Research. Sex Roles, 59(5-6), 312-325. doi:10.1007/s11199-008-9400-z

Bradshaw, C., Pierce, L., Tabrizi, S., Fairley, C., & Garland, S. (2005). Screening injecting drug users for sexually transmitted infections and blood borne viruses using street outreach and self-collected sampling. Sex Transm Infect, 81(1), 53-58. doi:10.1136/sti.2004.009423

Branson, C. E., & Clemmey, P. (2008). Heroin use and sexual risk among adolescents in residential treatment. Paper presented at the American Psychological Association 2008 Convention.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3(2), 77-101. doi:10.1191/1478088706qp063oa

Braveman, P. (2014). What Are Health Disparities and Health Equity? We need to be clear. Public Health Reports, 129(2), 5-8.

Braveman, P., & Gottlieb, L. (2014). The social determinants of health: it's time to consider the causes of the causes. Public Health Rep, 129 Suppl 2, 19-31. doi:10.1177/00333549141291s206

Braveman, P., & Gruskin, S. (2003a). Defining equity in health. J Epidemiol Community Health, 57(4), 254-258.

Braveman, P., & Gruskin, S. (2003b). Poverty, equity, human rights and health. Bulletin of the World Health Organization, 81(7), 539-545.

Braveman, P., Kumanyika, S., Fielding, J., LaVeist, T., Borrell, L. N., Manderscheid, R., & Troutman, A. (2011). Health Disparities and Health Equity: The Issue Is Justice. Am J Public Health, 101(1), S149-S155.

Bronfenbrenner, U. (1979). The ecology of human development: Experiments by nature and design. Cambridge, Massachusetts,: Harvard University Press.

Bronfenbrenner, U. (1994). Ecological Models of Human Development. In T. Husen & T. N. Postlethwaite (Eds.), International Encyclopaedia of Education (Vol. 3). Oxford: Elsevier.

Brooks, A., Meade, C. S., Potter, J. S., Lokhnygina, Y., Calsyn, D. A., & Greenfield, S. F. (2010). Gender differences in the rates and correlates of HIV risk behaviors among drug abusers. Subst Use Misuse, 45(14), 2444-2469. doi:10.3109/10826084.2010.490928

Brown, S., Henderson, E., & Sullivan, C. (2014). The feasibility and acceptability of the provision of alcohol screening and brief advice in pharmacies for women accessing emergency contraception: an evaluation study. BMC Public Health, 14, 1139. doi:10.1186/1471-2458-14-1139

Brown, T. J., Todd, A., O'Malley, C., Moore, H. J., Husband, A. K., Bambra, C., . . . Summerbell, C. D. (2016). Community pharmacy-delivered interventions for public health priorities: a systematic review of interventions for alcohol reduction, smoking cessation and weight management, including meta-analysis for smoking cessation. BMJ Open, 6(2), e009828.

Brownmiller, S. (1976). Against Our Will: men, women and rape. Harmondsworth: Penguin.

Bryman, A. (2016). Social Research Methods (5th ed.). United Kingdom: Oxford University Press.

Buchanan, I. (2018). Third Wave feminism (2 ed.): Oxford University Press.

Burchardt, T., Le Grand, J., & Piachaud, D. (2002). Degrees of exclusion: Developing a dynamic multidimensional measure. In J. Hills, J. Le Grand, & D. Piuchaud (Eds.), Understanding Social Exclusion. Oxford: Oxford University Press.

Button, D. M., O'Connell, D. J., Gealt, R. (2012). Sexual minority youth victimization and social support: the intersection of sexuality, gender, race and victimization. J Homosex; 59(1): 18–43.

Cabral, R. J., Calavotti, C., Armstrong, K., Morrow, B. M. S., Fogarty, L. (2008). Reproductive and contraceptive attitudes as predictors of condom use among women in a HIV prevention intervention. Women Health; 33(3–4): 131–47.

Campbell, A. N., Brooks, A. J., Pavlicova, M., Hu, M-C., HatchMaillette, M. A., Calsyn, DA., et al. (2016). Barriers to condom use: results for men and women enrolled in HIV risk reduction trials in outpatient drug treatment. J HIV/AIDS Soc Serv; 15(2): 130–46.

Campbell, C., & Jovchelovitch, S. (2000). Health, community and development: towards a social psychology of participation. Journal of Community & Applied Social Psychology, 10(4), 255-270. doi:10.1002/1099-1298(200007/08)10:4<255::AID-CASP582>3.0.CO;2-M

Campbell, C. D.H. (2006). Unravelling the context of stigma: from internalisation to resistance to change. J. Community Appl. Soc. Psychol. 16 (16), 411–417.

Campbell, A. N., Tross, S., Dworkin, S. L., Hu, M. C., Manuel, J., Pavlicova, M., et al. (2009). Relationship power and sexual risk among women in community-based substance abuse treatment. J Urban Health; 86(6): 951–64.

Carlson, R. G. (1999). 'Boy' and 'girl': The AIDS risk implications of heroin and cocaine symbolism among injection drug users. Anthropol Med; 6 (1): 59–77.

Carney, G. (2002). Feminism, the Women's Movement and the Internationalisation of Gender Equality Policy: The Case of 'Gender Mainstreaming'. Irish Political Studies, 17(2), 17-34. doi:10.1080/714003205

Castillo, C. H. M., Garrafa, V., Cunha, T., & Hellmann, F. (2017). Access to health care as a human right in international policy: critical reflections and contemporary challenges. Cien Saude Colet, 22(7), 2151-2160. doi:10.1590/1413-81232017227.04472017

Cavanaugh, C. E., Floyd, L. J., Penniman, T. V., Hulbert, A., Gaydos, C., Latime, W. W. (2011). Examining racial/ethnic disparities in sexually transmitted diseases among recent heroin-using and cocaine using women. J Womens Health; 20(2): 197–205.

Cavanaugh, C. E., Hedden, S. L., & Latimer, W. W. (2010). Sexually transmitted infections among pregnant heroin- or cocaine-addicted women in treatment: the significance of psychiatric co-morbidity and sex trade. Int J STD AIDS, 21(2), 141-142. doi:10.1258/ijsa.2009.009172

CDC. (1981). Morbidity and Mortality Weekly Report (MMWR). Retrieved from Altlanta (US):

CDC. (2016). About HIV/AIDS. Retrieved from https://www.cdc.gov/hiv/basics/whatishiv.html

Centre for Review and Dissemination. (2016). PROSPERO - International prospective register of systematic reviews. Retrieved from http://www.crd.york.ac.uk/PROSPERO/

Chaar, B. B., Wang, H., Day, C. A., Hanrahan, J. R., Winstock, A. R., & Fois, R. (2013). Factors influencing pharmacy services in opioid substitution treatment. Drug Alcohol Rev, 32(4), 426-434. doi:10.1111/dar.12032

Chambers, L. A., Rueda, S., Baker, D. N., Wilson, M. G., Deutsch, R., Raeifar, E., . . . Stigma Review, T. (2015). Stigma, HIV and health: a qualitative synthesis. BMC Public Health, 15, 848. doi:10.1186/s12889-015-2197-0

Charania, M. R., Crepaz, N., Guenther-Gray, C., Henny, K., Liau, A., Willis, L. A., & Lyles, C. M. (2011). Efficacy of Structural-Level Condom Distribution Interventions: A Meta-Analysis of U.S. and International Studies, 1998–2007. AIDS Behav, 15(7), 1283-1297. doi:10.1007/s10461-010-9812-y

Chermack, S. T., Fuller, B. E., Blow, F. C. (2000). Predictors of expressed partner and non-partner violence among patients in substance abuse treatment. Drug Alcohol Depend; 58 (1–2): 43–54.

Chermack, S. T., Walton, M. A., Fuller, B. E., Blow, F. C. (2001). Correlates of expressed and received violence across relationship types among men and women substance abusers. Psychol Addict Behav; 15: 140–51.

Chermack, S. T., Grogan-Kaylor, A., Perron, B. E., Murray, R. L., De Chavez, P., Walton, M. A. (2010). Violence among men and women in substance use disorder treatment: a multi-level event-based analysis. Drug Alcohol Depend; 112: 194–200.

Choopanya, K., Martin, M., Suntharasamai, P., Sangkum, U., Mock, P. A., Leethochawalit, M., ... Vanichseni, S. (2013). Antiretroviral prophylaxis for HIV infection in injecting drug users in Bangkok, Thailand (the Bangkok Tenofovir Study): a randomised, double-blind, placebo-controlled phase 3 trial. The Lancet, 381(9883), 2083-2090. doi:10.1016/s0140-6736(13)61127-7

Clinical Guidelines on Drug Misuse and Dependence Update 2017 Independent Expert Working Group. (2017). Drug misuse and dependence: UK guidelines on clinical management. Retrieved from London:

Coakley, T. M., Randolph, S., Shears, J., Beamon, E. R., Collins, P., & Sides, T. (2017). Parent–youth communication to reduce at-risk sexual behavior: A systematic literature review. Journal of Human Behavior in the Social Environment, 27(6), 609-624. doi:10.1080/10911359.2017.1313149

Coates, T. J., Richter, L., & Caceres, C. (2008). Behavioural strategies to reduce HIV transmission: how to make them work better. The Lancet, 372(9639), 669-684. doi:10.1016/s0140-6736(08)60886-7

Cohen, M. (1994). Impact of poverty on women's health. Canadian family physician Medecin de famille canadien, 40, 949-958.

Cole, E. R. (2008). Coalitions as a Model for Intersectionality: From Practice to Theory. Sex Roles, 59(5), 443-453. doi:10.1007/s11199-008-9419-1

Coleman, J. S. (1988). Social Capital in the Creation of Human Capital. American Journal of Sociology, 94, S95-S120. doi:10.1086/228943

Connell, R. W. (1987). Gender and power. Stanford: Stanford University Press.

Cornish, R., Macleod, J., Strang, J., Vickerman, P., & Hickman, M. (2010). Risk of death during and after opiate substitution treatment in primary care: prospective observational study in UK General Practice Research Database. BMJ, 341, c5475. doi:10.1136/bmj.c5475

Cortina, A. (2000). Aporofobia. Retrieved from https://elpais.com/diario/2000/03/07/opinion/952383603_850215.html

Cortina, A. (2017). Aporofobia, el rechazo al pobre: un desafio para la sociedad democratica. Spain: Paidos Iberica.

Coveney, L., Jackson, M., Jeffreys, S., Kay, L., & Mahoney, P. (1984). The sexuality papers: male sexuality and the social control of women. London: Hutchinson.

Crenshaw, K. (1989). Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrmiation Doctrine, Feminist Theory and Antiracist Politics. University of Chicago Legal Forum, 1989(8).

Creswell, J. W. (2014). Research Design: Qualitative, Quantitative and Mixed Methods Approach. US: SAGE Publications.

Dabhoiwala, F. (2012). The origins of sex : a history of the first sexual revolution. Oxford: Oxford : Oxford University Press, USA.

Dahlgren, G., & Whitehead, M. (1991). Policies and strategies to promote social equity in health. Background document to WHO - Strategy paper for Europe (Vol. 14).

Damasio, A. R. (1994). Descartes' error: emotion, reason, and the human brain. New York: Grosset/Putnam.

Davis, R., Campbell, R., Hildon, Z., Hobbs, L., & Michie, S. (2015). Theories of behaviour and behaviour change across the social and behavioural sciences: a scoping review. Health Psychol Rev, 9(3), 323-344. doi:10.1080/17437199.2014.941722

Day, E., & Mitcheson, L. (2017). Psychosocial interventions in opiate substitution treatment services: does the evidence provide a case for optimism or nihilism? Addiction, 112(8), 1329-1336. doi:10.1111/add.13644

De Cock, K. M., Jaffe, H. W., & Curran, J. W. (2012). The evolving epidemiology of HIV/AIDS. AIDS, 26(10), 1205-1213. doi:10.1097/QAD.0b013e328354622a

De Martel, C., Plummer, M., Vignat, J., & Franceschi, S. (2017). Worldwide burden of cancer attributable to HPV by site, country and HPV type. International Journal of Cancer, 141(4), 664-670.

Deacon, H. (2006). Towards a sustainable theory of health-related stigma: lessons from the HIV/AIDS literature. J. Community Appl. Soc. Psychol. 16 (6), 418–425.

Deaux, K. (1993). Reconstructing social identity personality and social psychology. Bulletin 19, 4–12.

Decker, M. R., Crago, A.-L., Chu, S. K. H., Sherman, S. G., Seshu, M. S., Buthelezi, K., . . . Beyrer, C. (2015). Human rights violations against sex workers: burden and effect on HIV. The Lancet, 385(9963), 186-199. doi:10.1016/s0140-6736(14)60800-x

De Graff, R., Vanwesenbeeck, I., van Zessen, G., Straver, C. J., Visser, J. H. (1995). Alcohol and drug use in heterosexual and homosexual prostitution, and its relation to protection behaviour. AIDS Care; 7(7): 35–47.

Degenhardt, L., Bucello, C., Mathers, B., Briegleb, C., Ali, H., Hickman, M., & McLaren, J. (2011). Mortality among regular or dependent users of heroin and other opioids: a systematic review and meta-analysis of cohort studies. Addiction, 106(1), 32-51. doi:10.1111/j.1360-0443.2010.03140.x

Degenhardt, L., Mathers, B., Vickerman, P., Rhodes, T., Latkin, C. A., & Hickman, M. (2010). Prevention of HIV infection for people who inject drugs: why individual, structural, and combination approaches are needed. The Lancet, 376(9737), 285-301.

Del Rio, C. (2014). HIV prevention: integrating biomedical and behevioral interventions. Top Antivir Med, 22(5), 702-706.

Deng, R., Li, J., Sringernyuang, L., Zhang, K. (2007). Drug abuse, HIV/AIDS and stigmatisation in a Dai community in Yunnan, China. Soc. Sci. Med. 64 (8), 1560–1571.

Denyer, D., & Tranfield, D. (2009). Producing a systematic review. In D. A. Buchanan & A. Bryman (Eds.), The SAGE handbook of organizational research methods (pp. 671-689). United Kingdom: SAGE.

Department of Health. (2008). Department of Health: Pharmacy in England. Building on strenghts - delivering the future. Retrieved from

Department of Health. (2010). Healthy lives, healthy people: Our strategy for public health in England. Retrieved from London:

Des Jarlais, D. C., Arasteh, K., McKnight, C., Hagan, H., Perlman, D. C., & Semaan, S. (2011). Associations Between Herpes Simplex Virus Type 2 and HCV With HIV Among Injecting Drug Users in New York City: The Current Importance of Sexual Transmission of HIV. Am J Public Health, 101(7), 1277-1283. doi:10.2105/AJPH.2011.300130

Des Jarlais, D. C., Arasteh, K., Perlis, T. E., Hagan, H., Abdul-Quader, A., Heackathorn, D. D., . . . Friedman, S. R. (2007). Convergence of HIV seroprevalence among injecting and non-injecting drug users in New York City. AIDS, 11(21), 231-235.

Des Jarlais, D. C., Feelemyer, J. P., Modi, S. N., Arasteh, K., & Hagan, H. (2012). Are females who inject drugs at higher risk for HIV infection than males who inject drugs: an international systematic review of high seroprevalence areas. Drug Alcohol Depend, 124(1-2), 95-107. doi:10.1016/j.drugalcdep.2011.12.020

DiClemente, R. J., Salazar, L., & Crosby, R. A. (2011). Health behavior theory for public health: Principles, foundations, and applications. Burlington: Joones & Bartlett Learning.

Dole, V. P., & Nyswander, M. (1965). A Medical Treatment for Diacetylmorphine (Heroin) Addiction. A Clinical Trial with Methadone Hydrochloride. Jama, 193, 646-650.

Donovan, G. R., & Paudyal, V. (2016). England's Healthy Living Pharmacy (HLP) initiative: Facilitating the engagement of pharmacy support staff in public health. Res Social Adm Pharm, 12(2), 281-292. doi:10.1016/j.sapharm.2015.05.010

Downe-Wamboldt, B. (1992). Content analysis: Method, applications, and issues. Health Care for Women International, 13, 313-321.

Duff, P., Tyndall, M., Buxton, J., Zhang, R., Kerr, T., & Shannon, K. (2013). Sex-for-Crack exchanges: associations with risky sexual and drug use niches in an urban Canadian city. Harm Reduct J, 10, 29. doi:10.1186/1477-7517-10-29

Dugosh, K., Abraham, A., Seymour, B., McLoyd, K., Chalk, M., & Festinger, D. (2016). A Systematic Review on the Use of Psychosocial Interventions in Conjunction With Medications for the Treatment of Opioid Addiction. J Addict Med, 10(2), 93-103. doi:10.1097/adm.0000000000000193

Dunkle, K.L., Jewkes, R.K., Brown, H.C., Gray, G.E., McIntryre, J.A., Harlow, S.D. (2004). Gender-based violence, relationship power, and risk of HIV infection in women attending antenatal clinics in South Africa. Lancet 363 (9419), 1415–1421.

Dworkin, A. (1981). Pornography: men possessing women. London: Women's Press.

Dworkin, S. L. (2005). Who is epidemiologically fathomable in the HIV/AIDS epidemic? Gender, sexuality, and intersectionality in public health. Cult Health Sex, 7(6), 615-623. doi:10.1080/13691050500100385

Eades, C. E., Ferguson, J. S., & O'Carroll, R. E. (2011). Public health in community pharmacy: a systematic review of pharmacist and consumer views. BMC Public Health, 11, 582. doi:10.1186/1471-2458-11-582

Earnshaw, V.A., Chaudoir, S.R. (2009). From conceptualizing to measuring HIV stigma: a review of HIV stigma mechanism measures. AIDS Behav. 13 (6), 1160–1177.

Earnshaw, V., Smith, L., Copenhaver, M. (2013). Drug addiction stigma in the context of methadone maintenance therapy: an investigation into understudied sources of stigma. Int. J. Ment. Health Addiction 11 (1), 110–122.

Earnshaw, V. A., Smith, L. R., Cunningham, C. O., & Copenhaver, M. M. (2015). Intersectionality of internalized HIV stigma and internalized substance use stigma: Implications for depressive symptoms. J Health Psychol, 20(8), 1083-1089. doi:10.1177/1359105313507964

Eaton, L. A., & Kalichman, S. C. (2014). Biomedical Advances in HIV Prevention : Social and Behavioral Perspectives. New York, NY, UNITED STATES: Springer.

ECDC. (2015). Surveillance Report. Sexually transmitted infections in Europe 2013. Retrieved from Stockholm:

Edelman, E. J., Moore, B. A., Caffrey, S., Sikkema, K., Jones, E., Schottenfeld, R. S., . . . Fiellin, L. E. (2014). HIV testing and sexual risk reduction counseling in office-based buprenorphine/naloxone treatment. Drug & Alcohol Dependence, 140, e54. doi:10.1016/j.drugalcdep.2014.02.167

Edelman, N. L., Patel, H., Glasper, A., & Bogen-Johnston, L. (2013). Understanding barriers to sexual health service access among substance-misusing women on the South East coast of England. J Fam Plann Reprod Health Care, 39(4), 258-263. doi:10.1136/jfprhc-2012-100507

Edelman, N. L., Patel, H., Glasper, A., & Bogen-Johnston, L. (2014). Sexual health risks and health-seeking behaviours among substance-misusing women. J Adv Nurs, 70(12), 2861-2870. doi:10.1111/jan.12442

El-Bassel, N., Gilbert, L., Schilling, R. F., Wada, T. (2000). Drug abuse and partner violence among women in methadone treatment. J Fam Violence; 15(3): 209–28.

El-Bassel, N., Gilbert, L., & Rajah, V. (2003). The relationship between drug abuse and sexual performance among women on methadone. Addict Behav, 28(8), 1385-1403. doi:10.1016/s0306-4603(02)00266-6

El-Bassel, N., Gilbert, L., Witte, S., Wu, E., & Chang, M. (2011). Intimate partner violence and HIV among drug-involved women: contexts linking these two epidemics--challenges and implications for prevention and treatment. Subst Use Misuse, 46(2-3), 295-306. doi:10.3109/10826084.2011.523296

El-Bassel, N., Gilbert, L., Wu, E., Go, H., & Hill, J. (2005). HIV and intimate partner violence among methadone-maintained women in New York City. Soc Sci Med, 61(1), 171-183. doi:10.1016/j.socscimed.2004.11.035

El-Bassel, N., Simoni, J. M., Cooper, D. K., Gilbert, L., Schilling, R. F. (2001). Sex trading and psychological distress among women on methadone. Psychology of Addictive Behaviors; 15(3): 177-84.

El-Bassel, N., Terlikbaeva, A., & Pinkham, S. (2010). HIV and women who use drugs: double neglect, double risk. The Lancet, 376(9738), 312-314.

Elifson, K. W., Klein, H., & Sterk, C. E. (2006). Predictors of sexual risk-taking among new drug users. J Sex Res, 43(4), 318-327. doi:10.1080/00224490609552331

Elkington, K. S., Bauermeister, J. A., & Zimmerman, M. A. (2011). Do parents and peers matter? A prospective socio-ecological examination of substance use and sexual risk among African American youth. J Adolesc, 34(5), 1035-1047. doi:https://doi.org/10.1016/j.adolescence.2010.11.004

Epele, M. E. (2002). Gender, violence and HIV: Women's survival in the streets. Cult Med Psychiatry; 26: 33–54.

Eriksson, M. (2011). Social capital and health--implications for health promotion. Global health action, 4, 5611-5611. doi:10.3402/gha.v4i0.5611

Evans, E. (2015). The politics of third wave feminisms : neoliberalism, intersectionality and the state in Britain and the US: Basingstoke, England

Evans, M. (1997). Introducing Contemporary Feminist Thought. United Kingdom: Blackwell Publishers.

Fenton, A. T., Elliott, M. N., Schwebel, D. C., Berkowitz, Z., Liddon, N. C., Tortolero, S. R., . . . Schuster, M. A. (2018). Unequal interactions: Examining the role of patient-centered care in reducing inequitable diffusion of a medical innovation, the human papillomavirus (HPV) vaccine. Soc Sci Med, 200, 238-248. doi:10.1016/j.socscimed.2017.09.030

Ferguson, K. E. (2017). Feminist Theory Today. Annual Review of Political Science, 20(1), 269-286. doi:10.1146/annurev-polisci-052715-111648

Fethers, K., Marks, C., Mindel, A., Estcourt, C. S. (2000). Sexually transmitted infections and risk behaviours in women who have sex with women. Sex Transm Infect; 76(5): 345–9.

Fish, J., Bewley, S. (2010). Using human rights-based approaches to conceptualise lesbian and bisexual women's health inequalities. Health Soc Care Community; 18(4): 355–62.

Folch, C., Casabona, J., Espelt, A., Majo, X., Meroño, M., Gonzalez, V., & Brugal, M. T. (2013). Gender differences in HIV risk behaviors among intravenous drug users in Catalonia, Spain. Gac Sanit, 27(4), 338-343.

Fox, A. M., & Meier, B. M. (2009). Health as Freedom: Addressing Social Determinants of Global Health Inequities through the Human Right to Development. Bioethics, 23(2), 112-122. doi:10.1111/j.1467-8519.2008.00718.x

Friedman, E. A., & Lawrence, O. G. (2012). Pillars for progress on the right to health: Harnessing the potential of human rights through a Framework Convention on Global Health. Health and Human Rights, 14(1), 4-19.

Friedman, S. R., Mateu-Gelabert, P., Ruggles, K. V., Goodbody, E., Syckes, C., Jessell, L., et al. (2017). Sexual risk and transmission behaviors, partnerships and settings among young adult nonmedical opioid users in New York City. AIDS Behav; 21(4): 994–1003.

Friend, F., Langhinrichsen-Rohling, J., Eichold, B. H. (2011). Same-day substance use in men and women charged with felony domestic violence offenses. Crim Justice Behav; 38: 619–33.

Gaines, T. L., Rudolph, A. E., Brouwer, K. C., Strathdee, S. A., Lozada, R., Martinez, G., et al. (2013). The longitudinal association of venue stability with consistent condom use among female sex workers in two Mexico-USA border cities. Int J STD AIDS; 24 (7): 523–9.

Galárraga, O., Colchero, M. A., Wamai, R. G., & Bertozzi, S. M. (2009). HIV prevention cost-effectiveness: a systematic review. BMC Public Health, 9(1), S5. doi:10.1186/1471-2458-9-S1-S5

Gale, N. K., Heath, G., Cameron, E., Rashid, S., & Redwood, S. (2013). Using the framework method for the analysis of qualitative data in multi-disciplinary health research. BMC Med Res Methodol, 13, 117. doi:10.1186/1471-2288-13-117

Gallo, M. F., Behets, F. M., Steiner, M. J., et al. (2007). Validity of self-reported 'safe sex' among female sex workers in Mombasa, Kenya. PSA Analysis. Int J STD AIDS; 18(1): 33–8.

Galtung, J. (1969). Violence, peace, and peace research. Journal of peace research, 6(3), 167-191.

Gentile, I., Zappulo, E., Buonomo, A. R., & Borgia, G. (2014). Prevention of mother-to-child transmission of hepatitis B virus and hepatitis C virus. Expert Rev Anti Infect Ther, 12(7), 775-782. doi:10.1586/14787210.2014.920254

Gidman, W., Ward, P., McGregor, L. (2012). Understanding public trust in services provided by community pharmacists relative to those provided by general practitioners: a qualitative study. BMJ open; 2(3).

Gilbert, L., El-Bassel, N., Schilling, R. F., Wada, T., Bennet, B. (2000). Partner violence and sexual HIV risk behaviors among women in methadone treatment. AIDS Behav; 4(3): 261–9.

Gilmore, G. D., & Campbell, M. D. (2005). Needs and capacity assessment strategies for health education and health promotion (3rd ed.). Sudbury, MA: Jones and Bartlett.

Gilson, L. (2003). Trust and the development of health care as a social institution. Social Science & Medicine; 56(7): 1453-68.

Girchenko, P., King, E. J. (2017). Correlates of double risk of HIV acquisition and transmission among women who inject drugs in St. Petersburg, Russia. AIDS Behav; 21(4): 1054–8.

Glanz, K., & Bishop, D. B. (2010). The role of behavioral science theory in development and implementation of public health interventions. Annu Rev Public Health, 31, 399-418. doi:10.1146/annurev.publhealth.012809.103604

Go, J. (2013). A global-historical sociology of power: on Mann's concluding volumes to The sources of social power (Vol. 89, pp. 1469-1478): Oxford University Press / USA.

Goffman, E. (1963). Stigma: Notes on the Management of Spoiled Identity. Penguin, London.

Goldenberg, S. M., Rangel, G., Staines, H., Vera, A., Lozada, R., Nguyen, L., et al. (2013). Individual, interpersonal, and socia-structural correlated of involuntary sex exchange among female sex workers in two Mexico-US border cities. J Acquir Immune Defic Syndr; 63: 639–46.

Gollub, E. L. (2000). The female condom: tool for women's empowerment. Am J Public Health; 90(9): 1377–81.

Gómez, C. A., Marín, B. V. (1996). Gender, culture and power: barriers to HIV-prevention strategies for women. J Sex Res; 33(4): 355–62.

Gore-Felton, C., Somlai, A. M., Benotsch, E. G., Kelly, J. A., Ostrovski, D., Kozlov, A. (2003). The influence of gender on factors associated with HIV transmission risk among young Russian injection drug users. Am J Drug Alcohol Abuse; 29(4): 881–94.

Gossop, M., Powis, B., Griffiths, P., Strang, J. (1995). Female prostitutes in south London: use of heroin, cocaine and alcohol, and their relationship to health risk behaviors. AIDS Care; 7(3): 253–60.

Gowing, L., Farrell, M. F., Bornemann, R., Sullivan, L. E., & Ali, R. (2011). Oral substitution treatment of injecting opioid users for prevention of HIV infection. Cochrane Database Syst Rev(8), Cd004145. doi:10.1002/14651858.CD004145.pub4

Grant, R. M., Lama, J. R., Anderson, P. L., McMahan, V., Liu, A. Y., Vargas, L., . . . Glidden, D. V. (2010). Preexposure Chemoprophylaxis for HIV Prevention in Men Who Have Sex with Men. New England Journal of Medicine, 363(27), 2587-2599. doi:10.1056/NEJMoa1011205

Green, L. W., & Kreuter, M. W. (1991). Health program planning: An educational and environmental approach (2nd ed.). Mountain View, CA: Mayfield.

Green, L. W., & Kreuter, M. W. (1999). Health program planning: An educational and environmental approach (3rd ed.). Mountain View, CA: Mayfield.

Green, L. W., & Kreuter, M. W. (2005). Health program planning: An educational and ecological approach (4th ed.). New York: McGraw Hill Professional.

Grella, C. E., Anglin, D., Annon, J. J. (1996). HIV risk behaviors among women in methadone maintenance treatment. Subst Use Misuse; 31(3): 277–301.

Gruenewald, P. J., Remer, L. G., & LaScala, E. A. (2014). Testing a social ecological model of alcohol use: the California 50-city study. Addiction (Abingdon, England), 109(5), 736-745. doi:10.1111/add.12438

Gruskin, S., Dickens, B. (2006). Human Rights and Ethics in Public Health. American journal of public health; 96(11): 1903-5.

Gu, J., Chen, H., Chen, X., Lau, J. T. F., Wang, R., Liu, C., et al. (2008). Severity of drug dependence, economic pressure and HIV-related risk behaviors among non-institutionalized female injecting drug users who are also sex workers in China. Drug Alcohol Depend; 97: 257–67.

Gu, J., Wang, R., Chen, H., Lau, J. T., Zhang, L., Hu, X., et al. (2009). Prevalence of needle sharing commercial sex behaviors and associated factors in Chinese male and female injecting drug user populations. AIDS Care; 21(1): 31–41.

Guba, E. G. (1985). The context of emergent paradigm research. In Y. S. Lincoln (Ed.), Organization Theory and Inquiry: The Paradigm Revolution. Beverlly Hills, CA.: Sage.

Guba, E. G., & Lincoln, Y. S. (1994). Competing Paradigms in Qualitative Research. In N. K. Denzin & Y. S. Lincoln (Eds.), Handbook of Qualitative Research. Thousand Oaks, CA.: Sage.

Guimaraes, R. A., Monteiro, L. H., Teles, S. A., Fernandes, I. L., Rodovalho, A. G., Silva, G. C., . . . de Souza, M. R. (2018). Risk behaviors for sexually transmitted infections in noninjecting drug users: A cross-sectional study. Int J STD AIDS, 29(7), 658-664. doi:10.1177/0956462417750332

Hagan, H., Perlman, D. C., & Des Jarlais, D. C. (2011). Sexual risk and HIV infection among drug users in New York City: a pilot study. Subst Use Misuse, 46(2-3), 201-207.

Hahné, S. J. M., Veldhuijzen, I. K., Wiessing, L., Lim, T.-A., Salminen, M., & Laar, M. v. d. (2013). Infection with hepatitis B and C virus in Europe: a systematic review of prevalence and cost-effectiveness of screening. BMC Infectious Diseases, 13(1), 181. doi:10.1186/1471-2334-13-181

Hancock, A.-M. (2007). Intersectionality as a Normative and Empirical Paradigm. Politics & Gender, 3(02). doi:10.1017/s1743923x07000062

Hankivsky, O. (2012). Women's health, men's health, and gender and health: implications of intersectionality. Soc Sci Med, 74(11), 1712-1720. doi:10.1016/j.socscimed.2011.11.029

Hansen, H., Lopez-Iftikhar, M. M., Alegria, M. (2002). The economy of risk and respect: accounts by Puerto Rican sex workers of HIV risk taking. J Sex Res; 39(4): 292–301.

Harris, M., Rhodes, T. (2013). Injecting practices in sexual partnerships: Hepatitis C transmission potentials in a 'risk equivalence' framework. Drug and Alcohol Dependence, 132: 617-623.

Hatzenbuehler, M. L., Phelan, J. C., & Link, B. G. (2013). Stigma as a fundamental cause of population health inequalities. Am J Public Health, 103(5), 813-821. doi:10.2105/AJPH.2012.301069

Hawe, P., & Shiell, A. (2000). Social capital and health promotion: a review. Soc Sci Med, 51(6), 871-885. doi:https://doi.org/10.1016/S0277-9536(00)00067-8

Heijnders, M., Van Der Meij, S. (2006). The fight against stigma: an overview of stigma-reduction strategies and interventions. Psychology, health & medicine; 11(3): 353-63.

Heintz, A. J., & Melendez, R. M. (2006). Intimate Partner Violence and HIV/STD Risk Among Lesbian, Gay, Bisexual, and Transgender Individuals. J Interpers Violence, 21(2), 193-208. doi:10.1177/0886260505282104

Heise, L. (1998). Violence against women: an integrated, ecological framework. Violence Against Women; 4: 262–90.

Heise, L. (2011). What works to prevent partner violence: an evidence overview. London: Strive Research Consortium.

Hoffman, S., Mantell, J., Exner, T., & Stein, Z. (2004). The future of the female condom. Perspect Sex Reprod Health, 36(3), 120-126.

Hogben, M., Ford, J., Becasen, J. S., & Brown, K. F. (2015). A Systematic Review of Sexual Health Interventions for Adults: Narrative Evidence. The Journal of Sex Research, 52(4), 444-469. doi:10.1080/00224499.2014.973100

Holloway, I., & Todres, L. (2003). The Status of Method: Flexibility, Consistency and Coherence. Qualitative Research, 3(3), 345-357. doi:10.1177/1468794103033004

Holmes, K. K., Levine, R., & Weaver, M. (2004). Effectiveness of condoms in preventing sexually transmitted infections. Bulletin of the World Health Organization, 82(6), 454-461.

Holtgrave, D. R., Hall, H. I., Wehrmeyer, L., Maulsby, C. (2012). Costs, consequences and feasibility of strategies for achieving the goals of the National HIV/AIDS strategy in the United States: a closing window for success? AIDS Behav; 16(6): 1365–72.

Hood, J. E., Friedman, A. L. (2011). Unveiling the hidden epidemic: a review of stigma associated with sexually transmissible infections. Sex Health; 8(2): 159–70.

Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. Qual Health Res, 15(9), 1277-1288. doi:10.1177/1049732305276687

Hsieh, N., & Ruther, M. (2016). Sexual Minority Health and Health Risk Factors: Intersection Effects of Gender, Race, and Sexual Identity. Am J Prev Med, 50(6), 746-755. doi:https://doi.org/10.1016/j.amepre.2015.11.016

Hubbard, P., Matthews, R., Scoular, J. (2008). Regulating sex work in the EU: prostitute women and the new spaces of exclusion. Gend, Place Cult; 15(2): 137–52.

Hughes, C. (2002). Key concepts in feminist theory and research. London: Sage.

Hughes, G., & Field, N. (2015). The epidemiology of sexually transmitted infections in the United Kingdom: impact of behaviour, services and interventions. Future Microbiology.

Hughes, T. L., Johnson, T. P., Steffen, A. D., Wilsnack, S. C., Everett, B. (2014). Lifetime victimization, hazardous drinking, and depression among heterosexual and sexual minority women. LGBT Health; 1(3): 192–203

Hwang, L. Y., Zack, C., Rickman, K., & Holleman, M. (2000). Prevalence of sexually transmitted infections and associated risk factors among populations of drug ubusers. Clinical Infectious Diseases, 31(4), 920-926.

Inman, D. D., van Bakergem, K. M., LaRosa, A. C., & Garr, D. R. (2011). Evidence-Based Health Promotion Programs for Schools and Communities. Am J Prev Med, 40(2), 207-219. doi:https://doi.org/10.1016/j.amepre.2010.10.031

International Planned Parenthood Federation. (2008). Sexual rights, an IPPF declaration. Retrieved from London:

Israel, B. A., Schulz, A. J., Parker, E. A., & Becker, A. B. (1998). A review of community-based research: Assessing partnership approaches to improve public health. Annu Rev Public Health, 19, 173-202.

Israel, B. A., Schulz, A. J., Parker, E. A., Becker, A. B., Allen, A. J., & Guzman, J. R. (2008). Critical issues in developing and following community based participatory research principles. In M. Minkler & N. Wallerstein (Eds.), Community-based participatory research for health: From process to outcomes (2nd ed., pp. 47-66). San Francisco: Jossey-Bass.

Iversen, J., Dolan, K., Ezard, N., & Maher, L. (2015). HIV and Hepatitis C virus infection and risk behaviors among heterosexual, bisexual, and lesbian women who inject drugs in Australia. LGBT Health, 2(2), 127-134.

Jacobsen, M. M., & Walensky, R. P. (2016). Modeling and Cost-Effectiveness in HIV Prevention. Curr HIV/AIDS Rep, 13(1), 64-75. doi:10.1007/s11904-016-0303-2

Jaffray, M., Matheson, C., Bond, C. M., Lee, A. J., McLernon, D. J., Johnstone, A., . . . Davidson, B. (2014). Does training in motivational interviewing for community pharmacists improve outcomes for methadone patients? A cluster randomised controlled trial. Int J Pharm Pract, 22(1), 4-12. doi:10.1111/ijpp.12049

Jetten, J., H, S.A., Haslam, C., (2012). The case for a social identity analysis of health and well-being. In: Jetten, H.C., Haslam, S.A. (Eds.), The Social Cure. Psychology Press, UK, pp. 3–19.

Jewkes, R. K., Dunkle, K. L., Nduna, M., Shai, N. (2010). Intimate partner violence, relationship power inequity, and incidence of HIV infection in young women in South Africa: a cohort study. Lancet; 376: 41–8.

Jin, H. K., Choi, J. H., Kang, J. E., & Rhie, S. J. (2018). The effect of communication skills training on patient-pharmacist communication in pharmacy education: a meta-analysis. Adv Health Sci Educ Theory Pract, 23(3), 633-652. doi:10.1007/s10459-017-9791-0

Joffe, H., (1999). Risk and 'the Other'. Cambridge University Press, Cambridge.

Johnson, B.T., Acabchuk, R.L., (2018). What are the keys to a longer, happier life? Answers from five decades of health psychology research. Soc. Sci. Med. 196, 218–226.

Johnson, H. L., Ghanem, K. G., Zenilman, J. M., & Erbelding, E. J. (2011). Sexually transmitted infections and adverse pregnancy outcomes among women attending inner city public sexually transmitted diseases clinic. Sexually Transmitted Diseases, 38(8), 167-171.

Jones, L., Bates, G., McCoy, E., Beynon, C., McVeigh, J., & Bellis, M. A. (2014). Effectiveness of interventions to increase hepatitis C testing uptake among high-risk groups: a systematic review. Eur J Public Health, 24(5), 781-788. doi:10.1093/eurpub/ckt156

Jones, S. C., & Donovan, R. J. (2004). Does theory inform practice in health promotion in Australia? Health Educ Res, 19(1), 1-14. doi:10.1093/her/cyg002

Kahn, J. A. (2005). Vaccination as a prevention strategy for human papillomavirus-related diseases. Journal of Adolescent Health, 37(6, Supplement), S10-S16. doi:https://doi.org/10.1016/j.jadohealth.2005.08.018

Kalichman, S. C. (1999). Psychological and social correlates of high-risk sexual behaviour among men and women living with HIV/AIDS. AIDS Care; 11(4): 415–28.

Kalichman, S. C. (2017). Pence, Putin, Mbeki and their HIV/AIDS-related crimes against humanity: call for social justice and behavioural science advocacy. AIDS Behav, 21(4), 963-967.

Kalichman, S. C., Rompa, R., Cage, M., Di Fonzo, K., Simpson, D., Austin, J., et al. (2001). Effectiveness of an intervention to reduce HIV transmission risks in HIV-positive people. Am J Prev Med; 21(2): 84–92.

Kalichman, S. C., Simbayi, L. C., Kagee, A., Toefy, Y., Jooste, S., Cain, D., & Cherry, C. (2006). Associations of poverty, substance use, and HIV transmission risk behaviors in three South African communities. Soc Sci Med, 62(7), 1641-1649. doi:10.1016/j.socscimed.2005.08.021

Kapadia, F., Latka, M. H., Wu, Y., Strathdee, S. A., Mackesy-Amiti, M. E., Hudson, S. M., et al. (2011). Longitudinal determinants of consistent condom use by partner type among young injection drug users: the role of personal and partner characteristics. AIDS Behav.; 15(7): 1309–18.

Kass, N. E. (2001). An ethics framework for public health. Am J Public Health, 91(11), 1776-1782.

Kelly, M. P., Morgan, A., Ellis, S., Younger, T., Huntley, J., & Swann, C. (2010). Evidence based public health: A review of the experience of the National Institute of Health and Clinical Excellence (NICE) of developing public health guidance in England. Soc Sci Med, 71(6), 1056-1062. doi:10.1016/j.socscimed.2010.06.032

Kelly, M. P., Stewart, E., Morgan, A., Killoran, A., Fischer, A., Threlfall, A., & Bonnefoy, J. (2009). A conceptual framework for public health: NICE's emerging approach. Public Health, 123(1), e14-e20. doi:10.1016/j.puhe.2008.10.031

Khan, M., Berger, A., Hemberg, J., O'Neill, A., Dyer, T. P., & Smyrk, K. (2013). Non-injection and Injection Drug Use and STI/HIV Risk in the United States: The Degree to which Sexual Risk

Behaviors versus Sex with an STI-Infected Partner Account for Infection Transmission among Drug Users. AIDS Behav, 17(3), 1185-1194. doi:10.1007/s10461-012-0276-0

Khan, M., Berger, A., Hemberg, J., O'Neill, A., Penniman Dyer, T., & Smyrk, K. (2013). Non-injection and injection drug use and STI/HIV risk in the United States: The degree to which sexual risk behaviors versus sex with an STI-infected partner account for infection transmission among drug users. AIDS Behav, 17, 1185-1194.

Kilpatrick, D. G., Acierno, R., Resnick, H. S., Saunders, B. E., & Best, C. L. (1997). A 2-year longitudinal analysis of the relationships between violent assault and substance use in women. J Consult Cli Psychol, 65(5), 834-847.

King, E. J., Maman, S., Bowling, J. M., Moracco, K. E., Dudina, V., (2013). The influence of stigma and discrimination on female sex workers' access to HIV services in St. Petersburg, Russia. AIDS Behav. 17 (8), 2597–2603.

King, M., Semlyen, J., See Tai, S., Killaspy, H., Osborn, D., Popelyuk, D., et al. (2008). A systematic review of mental disorder, suicide, and deliberate self-harm in lesbian, gay and bisexual people. BMC Psychiatry; 8(1): 70.

Kippax, S. (2012). Effective HIV prevention: the indispensable role of social science. J Int AIDS Soc, 15(2), 17357. doi:10.7448/IAS.15.2.17357

Kmet, L. M., Lee, R. C., & Cook, L. S. (2004). Standard Quality Assessment Criteria for Evaluation Primary Research Papers from a Variety of Fields. Edmonton: Alberta Heritage Foundation for Medical Research.

Kocken, P., van Dorst, A., Schaalma, H. (2006). The relevance of cultural factors in predicting condom-use intentions among immigrants from the Netherlands Antilles. Health Educ Res; 21(2): 230–8.

Kok, G., Lo, S. H., Peters, G.-J. Y., & Ruiter, R. A. C. (2011). Changing energy-related behavior: An Intervention Mapping approach. Energy Policy, 39(9), 5280-5286. doi:10.1016/j.enpol.2011.05.036

Kok, G., van Essen, G. A., Wicker, S., Llupia, A., Mena, G., Correia, R., & Ruiter, R. A. (2011). Planning for influenza vaccination in health care workers: an Intervention Mapping approach. Vaccine, 29(47), 8512-8519. doi:10.1016/j.vaccine.2011.09.008

Krahn, M. D., John-Baptiste, A., Yi, Q., Doria, A., Remis, R. S., Ritvo, P., & Friedman, S. (2005). Potential cost-effectiveness of a preventive hepatitis C vaccine in high risk and average risk populations in Canada. Vaccine, 23(13), 1549-1558. doi:10.1016/j.vaccine.2004.09.023

Kral, A. H., Bluthenthal, R. N., Lorvick, J., Gee, L., Bacchetti, P., & Edlin, B. R. (2001). Sexual transmission of HIV-1 among injection drug users in San Francisco, USA: risk-factor analysis. The Lancet, 357(9266), 1397-1401. doi:10.1016/s0140-6736(00)04562-1

Krieger, N. (1994). Epidemiology and the web of causation: Has anyone seen the spider? Soc Sci Med, 39(7), 887-903. doi:https://doi.org/10.1016/0277-9536(94)90202-X

Krieger, N. (2001). Theories for social epidemiology in the 21st century: an ecosocial perspective. International Journal of Epidemiology, 30(4), 668-677. doi:10.1093/ije/30.4.668

Krieger, N. (2014). Discrimination and health inequities. Int J Health Serv, 44(4), 643-710. doi:10.2190/HS.44.4.b

Krusi, A., Chettiar, J., Ridgway, A., Abbott, J., Strathdee, S. A., Shannon, K. (2012). Negotiating safety and sexual risk reduction with clients in unsactioned safer indoor sex work environments: a qualitative study. Am J Public Health; 102(6): 1154–9.

Kulesza, M., Matsuda, M., Ramirez, J. J., Werntz, A. J., Teachman, B. A., & Lindgren, K. P. (2016). Towards greater understanding of addiction stigma: Intersectionality with race/ethnicity and gender. Drug Alcohol Depend, 169, 85-91. doi:10.1016/j.drugalcdep.2016.10.020

Kuyper, L. M., Collins, C. L. C., Kerr, T., Hogg, R. S., Li, K., Tyndall, M. W.,... Wood, E. (2005). The prevalence and incidence of sexually transmitted infections in a prospective cohort of injection drug users in Vancouver, British Columbia. The Canadian Journal of Infectious Diseases & Medical Microbiology, 16(4), 225-229.

Lacey, F. M., Jesson, J., & Matheson, L. (2011). Doing your literature review. Traditional and systematic techniques. London: SAGE.

Lacombe-Duncan, A. (2016). An Intersectional Perspective on Access to HIV-Related Healthcare for Transgender Women. Transgend Health, 1(1), 137-141. doi:10.1089/trgh.2016.0018

Laird, A., Hunter, C., Sardar, C. M., Fitzgerald, N. M., & Lowrie, R. (2016). Community pharmacy-based opiate substitution treatment and related health services: a study of 508 patients and 111 pharmacies. Journal of Public Health, 24(3), 193-207. doi:10.1007/s10389-016-0714-y

Laliberté, M.-C., Perreault, S., Damestoy, N., & Lalonde, L. (2012). Ideal and actual involvement of community pharmacists in health promotion and prevention: a cross-sectional study in Quebec, Canada. BMC Public Health, 12(1), 192. doi:10.1186/1471-2458-12-192

Lam, N. T. (2008). Drugs, sex and AIDS: Sexual relationships among injecting drug users and their sexual partners in Vietnam. Cult Health Sex; 10 (S1): S123–37.

Larios, S. E., Lozada, R., Strathdee, S. A., Semple, S. J., Roesch, S., Staines, H., . . . Patterson, T. L. (2009). An exploration of contextual factors that influence HIV risk in female sex workers in Mexico: The Social Ecological Model applied to HIV risk behaviors. AIDS Care, 21(10), 1335-1342. doi:10.1080/09540120902803190

Lawrinson, P., Ali, R., Buavirat, A., Chiamwongpaet, S., Dvoryak, S., Habrat, B., . . . Zhao, C. (2008). Key findings from the WHO collaborative study on substitution therapy for opioid dependence and HIV/AIDS. Addiction, 103(9), 1484-1492. doi:10.1111/j.1360-0443.2008.02249.x

Lazar, C., SanClemente, C., Ferrer, L., Folch, C., Casabona, J. (2015). Condom use among female sex workers in Catalonia: why do they use a condom, why don't they use it? AIDS Educ Prev; 27(2): 180–93.

Lee, R., Cui, R. R., Muessig, K. E., Thirumurthy, H., & Tucker, J. D. (2014). Incentivizing HIV/STI Testing: A Systematic Review of the Literature. AIDS Behav, 18(5), 905-912. doi:10.1007/s10461-013-0588-8

Lee, T. S., Chen, Y. P., & Chang, C. W. (2011). Gender differences in the perceived self-efficacy of safer HIV practices among polydrug abusers in Taiwan. Compr Psychiatry, 52(6), 763-768. doi:10.1016/j.comppsych.2010.10.015

Lee, T. S., Fu, L. A., Fleming, P. (2005). Using focus groups to investigate the educational needs of female injecting heroin users in Taiwan in relation to HIV/AIDS prevention. Health Educ Res; 21(1): 55–65.

Leek, J. T., Peng, R. D. (2015). Statistics: p values are just the tip of the iceberg. Nature; 520: 612.

Link, B. G., & Phelan, J. (1995). Social conditions as fundamental causes of disease. Journal of Health and Social Behavior, Spec No, 80-94.

Link, B.G., Phelan, J.C. (2001). Conceptualizing stigma. Annu. Rev. Sociol. 27, 363–385.

Link, B.G., Phelan, J. (2014). Stigma power. Soc. Sci. Med. 103, 24–32.

Link, B.G., Phelan, J.C., Bresnahan, M., Stueve, A., Pescosolido, B.A. (1999). Public conception of mental illness: labels, causes, dangerousness, and social distance. Am. J. Public Health 89 (9), 1328–1333.

Liu, H., Li, J., & Li, J. (2012). Roles of mixing of drug-use network and sexual network on heterosexual transmission of HIV among Young drug users: an egocentric network study in Yunnan, China. International Journal of Infectious Diseases, 16(1), e186.

Lloyd, C., 2013. The stigmatization of problem drug users: a narrative literature review. Drugs Educ. Prev. Policy 20 (2), 85–95.

Lloyd, J. J., Logan, S., Greaves, C. J., & Wyatt, K. M. (2011). Evidence, theory and context – using intervention mapping to develop a school-based intervention to prevent obesity in children. International Journal of Behavioral Nutrition and Physical Activity, 8(73).

Logie, C. H., Lacombe-Duncan, A., Wang, Y., Kaida, A., de Pokomandy, A., Webster, K., et al. (2017). Sexual orientation differences in health and wellbeing among women living with HIV in Canada: findings from a National Cohort Study. AIDS Behav; 22(6): 1987–2001.

Logie, C. H., James, L., Tharao, W., & Loutfy, M. R. (2011). HIV, gender, race, sexual orientation, and sex work: a qualitative study of intersectional stigma experienced by HIV-positive women in Ontario, Canada. PLoS Med, 8(11), e1001124. doi:10.1371/journal.pmed.1001124

López-Zetina, J., Ford, W., Weber, M., Barna, S., Woerhle, T., Kerndt, P., & Monterroso, E. (2000). Predictors of syphilis seroreactivity and prevalence of HIV among street recruited injection drug users in Los Angeles County, 1994–6. Sex Transm Infect, 76(6), 462.

Loutfy, M. R., Logie, C. H., Zhang, Y., Blitz, S. L., Margolese, S. L., Tharao, W. E., . . . Raboud, J. M. (2012). Gender and ethnicity differences in HIV-related stigma experienced by people living with HIV in Ontario, Canada. PLoS One, 7(12), e48168. doi:10.1371/journal.pone.0048168

Luger, L., Bathua, N., Alcorn, R., & Power, R. (2000). Involvement of community pharmacists in the care of drug misusers: pharmacy-based supervision of methadone consumption. International Journal of Drug Policy, 11, 227-234.

Luoma, J.B., Twohig, M.P., Waltz, T., Hayes, S.C., Roget, N., Padilla, M., Fisher, G., (2007). An investigation of stigma in individuals receiving treatment for substance abuse. Addict. Behav. 32 (7), 1331–1346.

Lupton, D. (1997). Foucault and the medicalisation critique. In: Petersen A, Bunton R, editors. Foucault, health and medicine. London: Routledge; 94-110.

Luty, J., Kumar, P., & Stagias, K. (2010). Stigmatised attitudes in independent pharmacies associated with discrimination towards individuals with opioid dependence. The Psychiatrist, 34(12), 511-514. doi:10.1192/pb.bp.109.028951

Lyons, T., Kerr, T., Duff, P., Feng, C., Shannon, K. (2014). Youth, violence and non-injecting drug use: nexus of vulnerabilities among lesbian and bisexual sex workers. AIDS Care; 26(9): 1090–4.

MacArthur, G. J., Minozzi, S., Martin, N., Vickerman, P., Deren, S., Bruneau, J., . . . Hickman, M. (2012). Opiate substitution treatment and HIV transmission in people who inject drugs: systematic review and meta-analysis. BMJ, 345, e5945. doi:10.1136/bmj.e5945

Mackenbach, J. P. (2012). The persistence of health inequalities in modern welfare states: the explanation of a paradox. Soc Sci Med, 75(4), 761-769. doi:10.1016/j.socscimed.2012.02.031

Mackenbach, J. P., Stirbu, I., Roskam, A.-J. R., Schaap, M. M., Menvielle, G., Leinsalu, M., & Kunst, A. E. (2008). Socioeconomic Inequalities in Health in 22 European Countries. New England Journal of Medicine, 358(23), 2468-2481. doi:10.1056/NEJMsa0707519

Mackesy-Amiti, M. E., Noodram, B., Williams, C., Ouellet, L. J., Broz, D. (2013). Sexual risk behavior associated with transition to injection among young non-injecting heroin users. AIDS Behav; 17: 2459–66.

MacKinnon, C. (1982). Feminism, Marxism, method and the state: an agenda for theory. Signs, 7(3), 151-144.

MacRae, R., Aalto, E. (2000). Gendered power dynamics and HIV risk in drug-using sexual relationships. AIDS Care; 12(4): 505–15.

Maffli, E., Zumbrunn, A. (2003). Alcohol and domestic violence in a sample of incidents reported to the policy in Zurich City. Subst Use Misuse; 38: 881–93.

Mahajan, A.P., Sayles, J.N., Patel, V.A., Remien, R.H., Ortiz, D., Szekeres, G., Coates, T.J. (2008). Stigma in the HIV/AIDS epidemic: a review of the literature and recommendations for the way forward. AIDS; 22(2): S67–S79.

Maier, S. F., & Seligman, M. E. (2016). Learned helplessness at fifty: Insights from neuroscience. Psychol Rev, 123(4), 349-367. doi:10.1037/rev0000033

Maksut, J. L., & Eaton, L. A. (2015). Female condoms = missed opportunities: lessons learned from promotion-centered interventions. Womens Health Issues, 25(4), 366-376.

Malta, M., Strathdee, S. A., Magnanini, M. F., & Bastos, F. I. (2008). Adherence to antiretroviral therapy for human immunodeficiency virus/acquired immune deficiency syndrome among drug users: a systematic review. Addiction, 103(8), 1242-1257. doi:10.1111/j.1360-0443.2008.02269.x

Manhapra, A., Rosenheck, R., & Fiellin, D. A. (2017). Opioid substitution treatment is linked to reduced risk of death in opioid use disorder. BMJ, 357. doi:10.1136/bmj.j1947

Mann, M. (1986). The sources of social power: A history of power from the beginning to AD 1760 (Vol. Volume 1). New York: Cambridge University Press.

Marfatia, Y. S., Pendya, I., Mehta, K. (2015). Condoms: past, present and future. Indian J Sex Transm Dis, 36(2), 133-139.

Marks, D. F. (2008). The quest for meaningful theory in health psychology. J Health Psychol; 13(8): 977–81.

Marsch, L. A. (2002). The efficacy of methadone maintenance interventions in reducing illicit opiate use, HIV risk behavior and criminality: a meta-analysis. Addiction, 93(4), 515-532. doi:10.1046/j.1360-0443.1998.9345157.x

Mason-Jones, A. J., Sinclair, D., Mathews, C., Kagee, A., Hillman, A., & Lombard, C. (2016). School-based interventions for preventing HIV, sexually transmitted infections, and pregnancy in adolescents. Cochrane Database of Systematic Reviews(11). doi:10.1002/14651858.CD006417.pub3

Mathers, B. M., Degenhardt, L., Ali, H., Wiessing, L., Hickman, M., Mattick, R. P., . . . Strathdee, S. A. (2010). HIV prevention, treatment, and care services for people who inject drugs: a systematic review of global, regional, and national coverage. The Lancet, 375(9719), 1014-1028. doi:https://doi.org/10.1016/S0140-6736(10)60232-2

Matto, H. C. (2004). Applying an Ecological Framework to Understanding Drug Addiction and Recovery. Journal of Social Work Practice in the Addictions, 4(3), 5-22. doi:10.1300/J160v04n03_02

Mayer, K. H., & Pizer, H. F. (2008). HIV Prevention: A Comprehensive Approach. USA: Academic Press.

McCall, L. (2005). The complexity of intersectionality. Signs, 30(3), 1771-1800.

McCormack, S., Dunn, D. T., Desai, M., Dolling, D. I., Gafos, M., Gilson, R., . . . Gill, O. N. (2016). Pre-exposure prophylaxis to prevent the acquisition of HIV-1 infection (PROUD): effectiveness results from the pilot phase of a pragmatic open-label randomised trial. The Lancet, 387(10013), 53-60. doi:10.1016/s0140-6736(15)00056-2

McDonald, J., Jayasuriya, R., & Harris, M. F. (2012). The influence of power dynamics and trust on multidisciplinary collaboration: a qualitative case study of type 2 diabetes mellitus. BMC Health Serv Res, 12, 63-63. doi:10.1186/1472-6963-12-63

Mc Grath-Lone, L., Marsh, K., Hughes, G., Ward, H. (2014). The sexual health of female sex workers compared with other women in England: analysis of cross-sectional data from genitourinary medicine clinics. Sex Transm Infect; 90(4): 344–50.

McKeown, T. (1976). The role of medicine : dream, mirage or nemesis? London: London: Nuffield Provincial Hospitals Trust.

McLaughlin, D., McKenna, H., Leslie, J., Moore, K., & Robinson, J. (2006). Illicit drug users in Northern Ireland: perceptions and experiences of health and social care professionals. Journal of Psychiatric and Mental Health Nursing, 13(6), 682-686. doi:10.1111/j.1365-2850.2006.01015.x

McLeroy, K. R., Bibeau, D., Steckler, A., & Glanz, K. (1988). An ecological perspective on health promotion programs. Health Education & Behavior, 15(4), 351-377.

McMahon, J., Wanke, C., Terrin, N., Skinner, S., & Knox, T. (2011). Poverty, hunger, education, and residential status impact survival in HIV. AIDS Behav, 15(7), 1503-1511. doi:10.1007/s10461-010-9759-z

McMillan, K., Worth, H., & Rawstorne, P. (2018). Usage of the Terms Prostitution, Sex Work, Transactional Sex, and Survival Sex: Their Utility in HIV Prevention Research. Arch Sex Behav. doi:10.1007/s10508-017-1140-0

Meader, N., Li, R., Des Jarlais, D. C., & Pilling, S. (2010). Psychosocial interventions for reducing injection and sexual risk behaviour for preventing HIV in drug users. Cochrane Database Syst Rev(1), CD007192. doi:10.1002/14651858.CD007192.pub2

Medrano, M. A., Hatch, J. P., Zule, W. A., Desmond, D. P. (2003). Childhood trauma and adult prostitution behavior in a multi-ethnic heterosexual drug using population. Am J Drug Alcohol Abuse; 29(2): 463–86.

Mesquita, A. R., Lyra, D. P., Jr., Brito, G. C., Balisa-Rocha, B. J., Aguiar, P. M., & de Almeida Neto, A. C. (2010). Developing communication skills in pharmacy: a systematic review of the use of simulated patient methods. Patient Educ Couns, 78(2), 143-148. doi:10.1016/j.pec.2009.07.012

Michau, L., Horn, J., Bank, A., Dutt, M., Zimmerman, C. (2015). Prevention of violence against women and girls: lessons from practice. Lancet; 385 (9978): 1672–84.

Michie, L., Cameron, S. T., Glasier, A., Chen, Z. E., Milne, D., & Wilson, S. (2016). Provision of contraception after emergency contraception from the pharmacy: evaluating the acceptability of pharmacy for providing sexual and reproductive health services. Public Health, 135, 97-103. doi:10.1016/j.puhe.2015.11.017

Michie, S., Atkins, L., & West, R. (2014). The Behaviour Change Wheel: A Guide to Designing Interventions. Great Britain: Silverback Publishing.

Michie, S., van Stralen, M. M., & West, R. (2011). The behaviour change wheel: a new method for characterising and designing behaviour change interventions. Implement Sci, 6, 42. doi:10.1186/1748-5908-6-42

Miller, A. M., Kismödi, E., Cottingham, J., & Gruskin, S. (2015). Sexual rights as human rights: a guide to authoritative sources and principles for applying human rights to sexuality and sexual health. Reproductive Health Matters, 23(46), 16-30.

Miller, C. L., Spittal, P., LaLiberte, N., Li, K., Tyndall, M., O'Shaughnessy, M. V., et al. (2002). Females experiencing sexual and drug vulnerabilities are at elevated risk for HIV infection among youth who use injection drugs. J Acquir Immune Defic Syndr; 30: 335–41.

Miller, M., Neaigus, A. (2002). Sex partner support, drug use and sex risk among HIV-negative non-injecting drug users. AIDS Care; 14(6): 801–13.

Millet, K. (1977). Sexual Politics. London: Virago.

Minnis, A. M., & Padian, N. S. (2005). Effectiveness of female controlled barrier methods in preventing sexually transmitted infections and HIV: current evidence and future research directions. Sex Transm Infect, 81(3), 193.

Mitchell, M. M., & Latimer, W. W. (2009). Unprotected casual sex and perceived risk of contracting HIV among drug users in Baltimore, Maryland: evaluating the influence of non-injection versus injection drug user status. AIDS Care, 21(2), 221-230. doi:10.1080/09540120801982897

Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & The PRISMA Group. (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med, 6(7), e1000097. doi:10.1371/journal.pmed1000097

Montesanti, S. R. (2015). The role of structural and interpersonal violence in the lives of women: a conceptual shift in prevention of gender-based violence. BMC Women's Health; 15:93.

Moreno, R., Nababan, H. Y., Ota, E., Wariki, W. M., Ezoe, S., Gilmour, S., & Shibuya, K. (2014). Structural and community-level interventions for increasing condom use to prevent the transmission of HIV and other sexually transmitted infections. Cochrane Database Syst Rev(7), CD003363. doi:10.1002/14651858.CD003363.pub3

Morrison, C. L., Ruben, S. M., & Beeching, N. J. (1995). Female sexual health problems in a drug dependency unit. Int J STD AIDS, 6(3), 201-203. doi:10.1177/095646249500600311

Morrison, D. S. (2009). Homelessness as an independent risk factor for mortality: results from a retrospective cohort study. International Journal of Epidemiology, 38(3), 877-883. doi:10.1093/ije/dyp160

Morton, A., Tabrizi, S., Garland, S., Lee, P., Reid, P., & Fairley, C. (2002). Will the legalisation of street sex work improve health? Sex Transm Infect, 78(4), 309-309. doi:10.1136/sti.78.4.309

Moscovici, S. (1976). Social influence and social change. London: London : Academic Press for the European Association of Experimental.

Moss, N.E. (2002). Gender equity and socioeconomic inequality: a framework for the patterning of women's health. Soc. Sci. Med. 54 (5), 649–661 (1982).

Muhib, F. B., Lin, L. S., Stueve, A., Miller, R. L., Ford, W. L., Johnson, W. D., . . . Community Intervention Trial for Youth Study Team. (2001). A venue-based method for sampling hard-to-reach populations. Public Health Reports, 116, 216-222.

Muntaner, C., & Lynch, J. (1999). Income inequality, social cohesion, and class relations: a critique of Wilkinson's neo-Durkheimian research program. Int J Health Serv, 29(1), 59-81. doi:10.2190/g8qw-tt09-67pl-qtnc

Napier, A. D., Ancarno, C., Butler, B., Calabrese, J., Chater, A., Chatterjee, H., & et al. (2014). Culture and health. The Lancet, 384, 1607-1639.

Nass, J., Banerjee, M., Efferth, T., & Wohlmann, A. (2016). Pharmaceutical care as narrative practice? Rethinking patient-centered care through a pharmacist's perspective. Int J Clin Pharm, 38(6), 1346-1349. doi:10.1007/s11096-016-0391-5

Nehl, E. J., Elifson, K., DePadilla, L., Sterk, C. (2016). Sex partner type, drug use and condom use self-efficacy among African Americans from disadvantaged neighborhoods: are associations with consistent condom use moderated by gender? J Sex Res; 53(7): 805–15.

Neumayr, G. Propst, A., Schwaighofer, H., Judmaier, G., Vogel, W. (1999). Lack of evidence for the heterosexual transmission of hepatitis C. WJM, 92: 505-508.

NHS. (2016). Hepatitis B. Retrieved from https://www.nhs.uk/conditions/hepatitis-b/

NHS. (2018). Hepatitis C. Retrieved from https://www.nhs.uk/conditions/hepatitis-c/

Nieminen, T., Prättälä, R., Martelin, T., Härkänen, T., Hyyppä, M. T., Alanen, E., & Koskinen, S. (2013). Social capital, health behaviours and health: a population-based associational study. BMC Public Health, 13, 613-613. doi:10.1186/1471-2458-13-613

Nieschlag, E. (2005). Hopes for male contraception. Lancet, 365(9459), 554-557.

Nimmon, L., & Stenfors-Hayes, T. (2016). The "Handling" of power in the physician-patient encounter: perceptions from experienced physicians. BMC medical education, 16, 114-114. doi:10.1186/s12909-016-0634-0

Noar, S. M., Carlyle, K., Cole, C. (2006). Why communication is crucial: Meta-analysis of the relationship between safer sexual communication and condom use. J Health Commun; 11(4): 365–90.

Novitsky, V., & Essex, M. (2012). Using HIV viral load to guide treatment-for-prevention interventions. Curr Opin HIV AIDS, 7(2), 117-124. doi:10.1097/COH.0b013e32834fe8ff

Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic Analysis: Striving to Meet the Trustworthiness Criteria. International Journal of Qualitative Methods, 16(1), 1609406917733847. doi:10.1177/1609406917733847

Nuffield Council on Bioethics. (2007). Public health: ethical issues. Retrieved from Cambridge:

Nyamathi, A. M., Lewis, C., Leake, B., Flaskerud, J., Bennett, C. (1995). Barriers to condom use and needle cleaning among impoverished minority female injection drug users and partners of injection drug users. Public Health Rep; 110(2): 166–72.

Ochsendorf, F. R. (2011). Sexually transmitted infections: impact on male fertility. Andrologia, 40(2), 72-75.

Okwundu, C. I., Uthman, O. A., & Okoromah, C. A. N. (2012). Antiretroviral pre-exposure prophylaxis (PrEP) for preventing HIV in high-risk individuals. Cochrane Database of Systematic Reviews(7). doi:10.1002/14651858.CD007189.pub3

Oosterom-Calo, R., Te Velde, S. J., Stut, W., & Brug, J. (2015). Development of Motivate4Change using the Intervention Mapping Protocol: An interactive technology physical activity and medication adherence promotion program for hospitalized heart failure patients. JMIR Research Protocols, 4(3), e88.

Operario, D., Gamarel, K. E., Grin, B. M., Lee, J. H., Kahler, C. W., Marsall, B. D. L., et al. (2015). Sexual minority health disparities in adult men and women in the United States: National Health and Nutrition Examination Survey, 2001-2010. Am J Public Health; 105(10): e27–34.

Orford, J. (1985). Excessive appetites: A psychological view of addictions (1st Edition ed.). Chinchester: Wiley.

Orford, J. (2001). Addiction as excessive appetite. Addiction, 96(1), 15-31. doi:10.1080/09652140020016932

Oswald, K., & Adcock, H. (Producer). (2016, January 2019). Community pharmacy care delivered at no net cost to public purse in 2015. Pharm J.

Overmier, J. B., & Seligman, M. E. (1967). Effects of inescapable shock upon subsequent escape and avoidance responding. Journal of Comparative and Physiological Psychology, 63(1), 28-33. doi:10.1037/h0024166

Palència, L., Malmusi, D., De Moortel, D., Artazcoz, L., Backhans, M., Vanroelen, C., Borrell, C., (2014). The influence of gender equality policies on gender inequalities in health in Europe. Soc. Sci. Med. 117, 25–33.

Pampel, F. C., Krueger, P. M., & Denney, J. T. (2010). Socioeconomic Disparities in Health Behaviors. Annual Review of Sociology, 36, 349-370. doi:10.1146/annurev.soc.012809.102529

Pankhurst, E. S. (1977). The suffragette movement : an intimate account of persons and ideals ([1st ed. reprinted]. ed.). London: London : Virago.

Parker, R., Aggleton, P., (2003). HIV and AIDS-related stigma and discrimination: a conceptual framework and implications for action. Soc. Sci. Med. 57 (1), 13–24.

Parkinson, S., Eatough, V., Holmes, J., Stapley, E., & Midgley, N. (2015). Framework analysis: a worked example of a study exploring young people's experiences of depression. Qualitative Research in Psychology, 13(2), 109-129. doi:10.1080/14780887.2015.1119228

Parsons, J., Adams, C., Aziz, N., Holmes, J., Jawad, R., & Whittlesea, C. (2013). Evaluation of a community pharmacy delivered oral contraception service. J Fam Plann Reprod Health Care, 39(2), 97-101. doi:10.1136/jfprhc-2012-100304

Peasant, C., Sullivan, T. P., Weiss, N. H., Martinez, I., Meyer, J. P. (2017). Beyond the syndemic: condom negotiation and use among women experiencing partner violence. AIDS Care; 29(4): 516–23.

Peng, E. Y. C., Yeh, C. Y., Cheng, S. H., Morisky, D. E., Lan, Y. C., Chen, Y. M. A., et al. (2011). A case-control study of HIV infection among incarcerated female drug users: impact of sharing needles and having drug-using sexual partners. J Formos Med Assoc; 110(7): 446–53.

Peters, A., Jansen, W., & van Driel, F. (2010). The female condom: the international denial of a strong potential. Reprod Health Matters, 18(35), 119-128. doi:10.1016/s0968-8080(10)35499-1

Peters, J. S., & Wolper, A. (1995). Women's Rights, Human Rights: International Feminist Perspectives. New York: Taylor & Francis.

Petersen, Z., Myers, B., van Hout, M.-C., Plüddemann, A., & Parry, C. (2013). Availability of HIV prevention and treatment services for people who inject drugs: findings from 21 countries. Harm Reduct J, 10(1), 13. doi:10.1186/1477-7517-10-13

Pickard, H. (2017). Responsibility without Blame for Addiction. Neuroethics, 10(1), 169-180. doi:10.1007/s12152-016-9295-2

Piot, P. (2006). AIDS: from crisis management to sustained strategic response. Lancet; 368: 526–30.

Platt, L., Minozzi, S., Reed, J., Vickerman, P., Hagan, H., French, C., . . . Hickman, M. (2017). Needle syringe programmes and opioid substitution therapy for preventing hepatitis C transmission in people who inject drugs. Cochrane Database of Systematic Reviews(9). doi:10.1002/14651858.CD012021.pub2

Portes, A. (1998). Social Capital: Its Origins and Applications in Modern Sociology. Annual Review of Sociology, 24(1), 1-24. doi:10.1146/annurev.soc.24.1.1

Pratt, B., & Loff, B. (2012). Health research systems: promoting health equity or economic competitiveness? Bulletin of the World Health Organization, 90(1), 55-62. doi:10.2471/BLT.11.092007

Probst, C., Parry, C. D. H., & Rehm, J. (2016). Socio-economic differences in HIV/AIDS mortality in South Africa (Vol. 21, pp. 846).

Pruitt, S. L., von Sternberg, K., Velasquez, M. M., Dolan Mullen, P. (2010). Condom use among sterilized and nonsterilized women in county jail and residential treatment centers. Women Health Issues; 20(6): 386–93.

Public Health England. (2015). Health promotion for sexual and reproductive health and HIV. Strategic action plan, 2016 to 2019. Retrieved from London:

Public Health England. (2017a). Acute hepatitis B (England): annual report for 2016. Retrieved from London:

Public Health England. (2017b). Condom Distribution Schemes in England 2015/2016. Retrieved from London:

Public Health England. (2017c). HIV in the UK 2017 slide set. London: Public Health England.

Public Health England. (2017d). National HIV surveillance data tables. Retrieved from London:

Public Health England. (2017e). Pharmacy: A way forward for public health. Opportunities for action through pharmacy for public health. Retrieved from London:

Public Health England. (2017f). Shooting Up: Infections among people who inject drugs in the UK, 2016. An update, November 2017. Retrieved from London

Public Health England. (2018a). All STI diagnoses and services by gender and sexual risk, 2013 to 2017. Retrieved from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/713327/2017_Table_4_All_STI_diagnoses___services_by_gender___sexual_risk.pdf

Public Health England. (2018b). Hepatitis C in the UK, 2018 report. Working to eliminate hepatitis C as a major public health threat. Retrieved from London:

Purdie-Vaughns, V., & Eibach, R. P. (2008). Intersectional Invisibility: The Distinctive Advantages and Disadvantages of Multiple Subordinate-Group Identities. Sex Roles, 59(5-6), 377-391. doi:10.1007/s11199-008-9424-4

Pyra, M., Weber, K. M., Wilson, T. E., Cohen, J., Murchison, L., Goparaju, L., et al. (2014). Sexual minority women and depressive symptoms throughout adulthood. Am J Public Health; 104(12): e83–90.

Rakhmanina, N. Y., & van den Anker, J. N. (2014). Pharmacologic prevention of perinatal HIV infection. Early Hum Dev, 90 Suppl 1, S13-15. doi:10.1016/s0378-3782(14)70005-2

Raymond, H. F., Rebchook, G., Curotto, A., Vaudrey, J., Amsden, M., Levine, D., & McFarland, W. (2010). Comparing internet-based and venue-based methods to sample MSM in the San Francisco Bay Area. AIDS Behav, 14(1), 218-224. doi:10.1007/s10461-009-9521-6

Real, J. P., Gracia Vasquez, S. L., Formica, M. L., & Palma, S. D. (2014). Challenges and opportunities related to health promotion in community pharmacies: Obstacles and professional perspectives. Pharmaceuticals Policy and Law, 16(3-4), 313-230.

Reblin, M., & Uchino, B. N. (2008). Social and emotional support and its implication for health. Curr Opin Psychiatry, 21(2), 201-205. doi:10.1097/YCO.0b013e3282f3ad89

Rhodes, T. & Cusick, L. (2000). Love and intimacy in relationship risk management: HIV positive people and their sexual partners. Sociol Health Illn, 22: 1-26.

Rice, W.S., Logie, C.H., Napoles, T.M., Walcott, M., Batchelder, A.W., Kempf, M.-C., Wingood, G.M., Konkle-Parker, D.J., Turan, B., Wilson, T.E., Johnson, M.O., Weiser, S.D., Turan, J.M., (2018). Perceptions of intersectional stigma among diverse women living with HIV in the United States. Soc. Sci. Med. 208, 9–17.

Rich, A. (1977). Of Woman Born: motherhood as experience and institution. London: Virago.

Rinehart, J. K., Yeater, E. A. (2012). The effects of male attractiveness and sexual attitudes on women's risk perception. Violence Against Women; 18(3): 249–63.

Ritchers, J., Clayton, S. (2010). The practical and symbolic purpose of dental dams in lesbian safer sex promotion. Sex Health, 7, 103-106.

Ritchie, J., Lewis, J., McNaughton Nicholls, C., & Ormston, R. (2014). Qualitative Research Practice: A guide for social science students and researchers. London: SAGE.

Ritchie, J., & Spencer, L. (1994). Qualitative data analysis for applied policy research. In B. R. Bryman A (Ed.), Analyzing Qualitative Data (pp. 173-194). London: Routledge.

Robertson, A. M., Syvertsen, J. L., Amaro, H., et al. (2014). Can't buy my love: a typology of female sex workers' commercial relationships in the Mexico-US border region. J Sex Res; 51(6): 711–20.

Robertson, H. D., Bond, C., & Matheson, C. (2015). The evolution of pharmaceutical care for drug misusers. Family Practice, 32(6), 639-645.

Room, R., (2005). Stigma, social inequality and alcohol and drug use. Drug Alcohol Rev. 24 (2), 143–155.

Rose, V. J., Lutnick, A., & Kral, A. H. (2014). Feasibility of providing interventions for injection drug users in pharmacy settings: a case study among San Francisco pharmacists. J Psychoactive Drugs, 46(3), 226-232. doi:10.1080/02791072.2014.921745

Rosenberg, S. (1988). Self and others: studies in social personality and autobiography. Adv. Exp. Soc. Psychol. 21, 57–95.

Ross, D. A. (2010). Behavioural interventions to reduce HIV risk: what works? AIDS, 24 Suppl 4, S4-14. doi:10.1097/01.aids.0000390703.35642.89

Rutter, H., Savona, N., Glonti, K., Bibby, J., Cummins, S., Finegood, D. T., . . . White, M. (2017). The need for a complex systems model of evidence for public health. The Lancet, 390(10112), 2602-2604. doi:10.1016/S0140-6736(17)31267-9

Sakondhavat, C. (2002). Challenges to female condom integration into condom programming. Int J STD AIDS, 13, 444-448.

Sallis, J. F., Owen, N., Fisher, E. G. (2008). Ecological models of health behavior. 4th ed. San Francisco: Jossey-Bass.

Sanchez, J., Comerford, M., Chitwood, D. D., Fernandez, M. I., McCoy, C. B. (2002). High risk sexual behaviors among heroin sniffers who have no history of injection drug use: implications for HIV risk reduction. AIDS Care; 14(3): 391–8.

Sanders, T. (2016). The risks of street prostitution: punters. Police and protesters. Urban Stud; 41(9): 1703–17.

Sangaramoorthy, T., Jamison, A., & Dyer, T. (2017). Intersectional stigma among midlife and older Black women living with HIV. Cult Health Sex, 19(12), 1329-1343. doi:10.1080/13691058.2017.1312530

Sangi-Haghpeykar, H., Horth, F., Poindexter, A. N. (2001). Condom use among sterilized and nonsterilized Hispanic women. Sex Transm Dis; 28(9): 546–51.

Sarkar, N. N. (2008). Barriers to condom use. EUR J Contracept Reprod Health Care; 13(2): 114–22.

Saunders, M., Lewis, P., & Thornhill, A. (2016). Research methods for business students (Seventh edition. ed.): Harlow : Pearson Education.

Sayer, A. (1997). Essentialism, Social Constructionism and beyond. The Sociological Review, 453-487.

Scambler, G. (2016). Sex work stigma: opportunist migrants in London. Sociology; 41(6): 1079–96.

Schanzer, B., Dominguez, B., Shrout, P. E., & Caton, C. L. M. (2007). Homelessness, health status, and health care use. Am J Public Health, 97(3), 464-469. doi:10.2105/AJPH.2005.076190

Schiltz, MAST (2000). HIV-positive people, risk and sexual behavior. Soc Sci Med; 50:1571–88.

Schroder, K. E. E., Carey, M. P., Vanable, P. A. (2003). Methodological challenges in research on sexual risk behaviour: II, Accuracy of selfreports. Ann Behav Med; 26(2): 104–23.

Schulz, A., & Northridge, M. E. (2004). Social Determinants of Health: Implications for Environmental Health Promotion. Health Education & Behavior, 31(4), 455-471. doi:10.1177/1090198104265598

Schutz, A. (1962). Collected Papers I: The Problem of Social Reality. The Hague: Martinus Nijhof.

Seeman, A., Leinhos, N., & Neumann, M. S. (2013). Public health stratgies for prevention and control of HSV-2 in persons who use drugs in the United States. Drug Alcohol Depend, 131, 182-197.

Semaan, S., Lauby, J., Walls, C. (1997). Condom use with main partners by sterilized and non-sterilized women. Women Health; 25(2): 65–85.

Seligman, M. E. (1972). Learned helplessness. Annu Rev Med, 23, 407-412. doi:10.1146/annurev.me.23.020172.002203

Seligman, M. E., & Maier, S. F. (1967). Failure to escape traumatic shock. Journal of Experimental Psychology, 74(1), 1-9. doi:10.1037/h0024514

Sen, G., & Östlin, P. (2008). Gender inequity in health: why it exists and how we can change it. Glob Public Health, 3(sup1), 1-12. doi:10.1080/17441690801900795

Shahmanesh, M., Patel, V., Mabey, D., & Cowan, F. (2008). Effectiveness of interventions for the prevention of HIV and other sexually transmitted infections in female sex workers in resource poor setting: a systematic review. Tropical Medicine & International Health, 13(5), 659-679. doi:10.1111/j.1365-3156.2008.02040.x

Shaw, S. A., El-Bassel, N. (2014). The influence of religion on sexual HIV risk. AIDS Behav; 18(8): 1569–94.

Sheeran, P., Abraham, C., Orbell, S. (1999). Psychosocial correlates of heterosexual condom use: a meta-analysis. Psychol Bull; 125(1): 90–132.

Shepards, C., Finelli, L., Alter, M. (2005). Global epidemiology of hepatitis C virus infection. Lancet Infect Dis, 5: 558-567.

Sheridan, J., Strang, J., Taylor, C., Barber, N. (2006). HIV prevention and drug treatment services for drug misusers: a national study of community pharmacists' attitudes and their involvement in service specific training. Addiction; 92(12): 1737-48.

Sherman, S. G., Latkin, C. A. (2001). Intimate relationship characteristics associated with condom use among drug users and their sex partners: a multilevel analysis. Drug Alcohol Depend; 64(1): 97–104.

Shields, S. A. (2008). Gender: An Intersectionality Perspective. Sex Roles, 59(5), 301-311. doi:10.1007/s11199-008-9501-8

Shinebourne, P. (2011). The Theoretical Underpinnings of Interpretative Phenomenological Analysis (IPA). Existential Analysis, 22(1).

Simons-Morton, D. G., Simons-Morton, B. G., Parcel, G. S., & Bunker, J. F. (1988). Influencing personal and environmental conditions for community health: A multilevel intervention model. Family & Community Health, 11(2), 25-35.

Singer, M. K. (2012). Applying the concept of culture to reduce health disparities through health behaviour research. Prev Med, 55, 356-361.

Singer, M. K., Dressler, W., George, S., & The NIH Expert Panel. (2016). Culture: The missing link in health research. Soc Sci Med, 170, 237-246.

Smith, J., & Firth, J. (2011). Qualitative data analysis: the framework approach. Nurse Researcher, 18(2), 52-62.

Smith, J. A. (1996). Beyond the divide between cognition and discourse: Using interpretative phenomenological analysis in health psychology. Psychol Health, 11(2), 261-271. doi:10.1080/08870449608400256

Smith, J. A., Flowers, P., & Larkin, M. (2009). Interpretative Phenomenological Analysis: Theory, Method and Research. London: SAGE.

Sniehotta, F. F., Araújo-Soares, V., Brown, J., Kelly, M. P., Michie, S., & West, R. (2017). Complex systems and individual-level approaches to population health: a false dichotomy? The Lancet Public Health, 2(9), e396-e397. doi:10.1016/S2468-2667(17)30167-6

Solnit, R. (2014). Men Explain Things to Me. UK: Granta Books.

Srivastava, A., & Thomson, S. B. (2009). Framework Analysis: A qualitative methodology for applied policy research. Journal of Administration & Governance, 4(2), 72-79.

Stanaway, J. D., Flaxman, A. D., Naghavi, M., Fitzmaurice, C., Vos, T., Abubakar, I., . . . Cooke, G. S. (2016). The global burden of viral hepatitis from 1990 to 2013: findings from the Global Burden of Disease Study 2013. Lancet (London, England), 388(10049), 1081-1088. doi:10.1016/S0140-6736(16)30579-7

Steen, R., Elvira Wi, T., Kamali, A., & Ndowa, F. (2009). Control of sexually transmitted infections and prevention of HIV transmission: mending a fractured paradigm. Bulletin of the World Health Organization, 87(11), 858-865. doi:10.2471/blt.08.059212

Sterk, C. E., Klein, H., Elifson, K. W. (2003). Perceived condom use selfefficacy among at-risk women. AIDS Behav; 7(2): 175–82.

Stockman, J. K., Lucea, M. B., & Campbell, J. C. (2013). Forced sexual initiation, sexual intimate partner violence and HIV risk in women: a global review of the literature. AIDS Behav, 17(3), 832-847. doi:10.1007/s10461-012-0361-4

Stockman, J. K., Morris, M. D., Martinez, G., Lozada, R., Patterson, T. L., Ulibarri, M. D., et al. (2012). Prevalence and correlates of female condom use and interest among injection drug-using female sex workers in two Mexico-US border cities. AIDS Behav; 16(7): 1877–86.

Stoebenau, K., Hindin, M. J., Nathanson, C. A., Rakotoarison, P. G., Razafintsalama, V. (2009). "… But then he became my sipa": the implications of relationship fluidity for condom use among women sex workers in Antananarivo, Madagascar. Am J Public Health; 99(5): 811–9.

Stokols, D. (1992). Establishing and maintaining healthy environments: Towards a social ecology of health promotion. American Psychologust, 4(1), 6-22.

Stokols, D. (2003). The ecology of human strengths. In L. G. Aspinwall & U. M. Staudinger (Eds.), A psychology of human strengths: Fundamental questions and future directions for a positive psychology (pp. 331-343). Washington: American Psychological Association.

Strang, J., & Sheridan, J. (2003). Drug misuse and community pharmacy. New York : Taylor & Francis.

Stangl, A.L., Lloyd, J.K., Brady, L.M., Holland, C.E., Baral, S. (2013). A systematic review of interventions to reduce HIV-related stigma and discrimination from 2002 to 2013: how far have we come? J. Int. AIDS Soc. 16 (3 Suppl. 2), 18734.

Strathdee, S. A. (2003). Sexual HIV transmission in the context of injection drug use: implications for interventions. International Journal of Drug Policy, 14(1), 79-81. doi:10.1016/s0955-3959(02)00211-6

Strathdee, S.A. (2003). Sexual HIV transmission in the context of injection drug use: implications for interventions. Int. J. Drug Pol. 14 (1), 79–81.

Strathdee, S. A., Abramovitz, D., Lozada, R., Martinez, G., Gudelia Rangel, M., Vera, A., et al. (2013). Reductions in HIV/STI incidence and sharing of injection equipment among female sex workers who inject drugs: results from randomized controlled trial. PLoS ONE; 8(6): e65812.

Strathdee, S. A., Galai, N., Safaiean, M., Celentano, D. D., Vlahov, D., Johnson, L., & Nelson, K. E. (2001). Sex differences in risk factors for HIV seroconversion among injection drug users: a 10-year perspective. Arch Intern Med, 161(10), 1281-1288.

Strathdee, S. A., Lozada, R., Martinez, G., Vera, A., Rusch, M. L., et al. (2011). Social and structural factors associates with HIV infection among female sex workers who inject drugs in Mexico-US border region. PLoS ONE; 6: e19048.

Strathdee, S. A., Philbin, M. M., Semple, S. J., Pu, M., Orozovich, P., et al. (2008). Correlates of injection drug use among female sex workers in two Mexico-US border cities. Drug Alcohol Depend; 92(9): 132–40.

Strathdee, S. A., & Sherman, S. G. (2003). The role of sexual transmission of HIV infection among injection and non-injection drug users. J Urban Health, 80(Suppl 3), iii7-iii14. doi:10.1093/jurban/jtg078

Strathdee, S. A., & Stockman, J. K. (2010). Epidemiology of HIV among injecting and non-injecting drug users: current trends and implications for interventions. Curr HIV/AIDS Rep, 7(2), 99-106. doi:10.1007/s11904-010-0043-7

Stuart, G. L., Moore, T. M., Elkins, S. R., O'Farrell, T. J., Temple, J. R., Ramsey, S., et al. (2013). The temporal association between substance use and intimate partner violence among women arrested for domestic violence. J Consult Clin Psychol; 81: 681–90.

Sumartojo, E. (2000). Structural factors in HIV prevention: concepts, examples, and implications for research. AIDS; 14(1): S3–10.

Syvertsen, J. L., Robertson Bazzi, A. (2015). Sex work, heroin injection and HIV risk in Tijuana: a love story. Anthropol Conscious; 26 (2): 182–94.

Syvertsen, J. L., Robertson Bazzi, A., Martinez, G., Rangel, M. G., Ulibarri, M. D., Fergus, K. B., et al. (2015). Love, trust, and HIV risk among female sex workers and their intimate male partners. Am J Public Health; 105(8): 1667–74.

Tajfel,H.,Turner,J.C. (1979). An integrative theory of intergroup conflict. In: Austin, E.G., Worchel, S. (Eds.), The Social Psychology of Intergroup Relations. Brooks/Cole, Monterey, CA, pp. 33–47.

Tajfel, H., Turner, J.C. (1986). The social identity theory of intergroup behavior. In: Worchel, S., Austin, W.G. (Eds.), Psychology of Intergroup Relations. Nelson, Chicago, pp. 7–24.

Tashakkori, A., & Teddlie, C. (1998). Mixed methodology: Combining qualitative and quantitative approaches. Thousand Oaks, CA, US: Sage Publications, Inc.

Teasdale, C. A., Marais, B. J., & Abrams, E. J. (2011). HIV: prevention of mother-to-child transmission. BMJ Clin Evid, 2011.

Thomas, C., Freisthler, B. (2016). Assessing Sample Bias among Venue-Based Respondents at Medical Marijuana Dispensaries. J Psychoactive Drugs, 48(1), 56-62. doi:10.1080/02791072.2015.1127450

Thomas, G., Humphris, G., Ozakinci, G., O'Brien, K., Roberts, S. A., Hopkins, M., & Brabin, L. (2010). A qualitative study of pharmacists' views on offering chlamydia screening to women requesting Emergency Hormonal Contraception. BJOG, 117(1), 109-113. doi:10.1111/j.1471-0528.2009.02362.x

Todd, A., Moore, H. J., Husband, A. K., Bambra, C., Kasim, A., Sniehotta, F. F., . . . Summerbell, C. D. (2014). Community pharmacy interventions for public health priorities: protocol for a systematic review of community pharmacy-delivered smoking, alcohol and weight management interventions. Syst Rev, 3, 93. doi:10.1186/2046-4053-3-93

Torgerson, C. (2003). Systematic Reviews. London: Continuum International Publishing Group.

Tortu, S., McMahon, J., Hamid, R., Neaigus, A. (2000). Drug-using women's sexual risk: an event analysis. AIDS Behav; 4(4): 329–40.

Townsend, T. G. (2008). Protecting Our Daughters: Intersection of Race, Class and Gender in African American Mothers' Socialization of Their Daughters' Heterosexuality. Sex Roles, 59(5/6), 429-442. doi:10.1007/s11199-008-9409-3

Trafimow, D., Marks, M. (2015). Editorial: basic and applied science. Appl Soc Psychol; 37: 1–2.

Trepo, C. (2014). A brief history of hepatitis milestones. Liver Int, 34 Suppl 1, 29-37. doi:10.1111/liv.12409

Tuffour, I. (2017). A critical overview of Interpretative Phenomenological Analysis: A contemporary qualitative reesarch approach. Journal of Healthcare Communications, 2(4:52).

Turner, J.C. (1985). Social categorization and the self-concept: a social cognitive theory of group behavior. In: Lawler, E.J. (Ed.), Advances in Group Processes. JAI Press, Greenwich, pp. 77–122.

Turner, J.C., Hogg, M.A., Oakes, P.J., Reicher, S.D., Wetherell, M.S., (1987). Rediscovering the Social Group. A Self-Categorization Theory. Basil Blackwell, UK.

Turner, J. C. (1991). Social Influence. Milton Keynes: Open University Press.

Tyndall, M.W., Patrick, D., Spittal, P., Li, K., Shaughnessy, M.V., Schechter, M.T., (2002). Risky sexual behaviours among injection drugs users with high HIV prevalence: implications for STD control. Sex. Transm. Infect. 78 (Suppl. 1), i170.

UN General Assembly. (1948). Universal declaration of human rights (217 [III] A). Paris: UN.

UNAIDS. (2014a). 90-90-90: An ambitious treatment target to help end the AIDS epidemic. Geneva: UNAIDS.

UNAIDS. (2014b). The Gap Report. Geneva: UNAIDS.

UNAIDS. (2015). On the Fast-Track to end AIDS: 2016-2021 Strategy. Geneva: UNAIDS.

UNAIDS. (2016a). Do No Harm - Health, Human Rights and People Who Use Drugs. Geneva: UNAIDS.

UNAIDS. (2016b). HIV prevention among adolescent girls and young women. Putting HIV prevention among adolescent girls and young qomwn on the Fast-Track and engaging men and boys. Geneva: UNAIDS.

UNAIDS (2016c). HIV prevention among adolescent girls and young women. Putting HIV prevention among adolescent girls and young qomwn on the Fast-Track and engaging men and boys. Geneva: UNAIDS.

Unemo, M., & Nicholas, R. A. (2012). Emergence of multidrug-resistant, extensively drug-resistant and untreatable gonorrhea. Future Microbiology, 7(12), 1401-1422. doi:10.2217/fmb.12.117

United Nations. (1948). Universal Declaration of Human Rights.

United Nations. (1994). Report of the International Conference on Population and Development, Cairo. Retrieved from http://www.un.org/popin/icpd/conference/offeng/poa.html

United Nations. (2015a). Millennium Development Goals. Retrieved from Geneva:

United Nations. (2015b). Transforming our world: The 2030 agenda for sustainable development. Retrieved from Geneva:

United Nations Office on Drug and Crime. (2017). World Drug Report 2017. Executive summary: Conclusions and policy implications. Retrieved from Vienna:

Van Boekel, L. C., Brouwers, E. P. M., van Weeghel, J., & Garretsen, H. F. L. (2013). Stigma among health professionals towards patients with substance use disorders and its consequences for healthcare delivery: Systematic review. Drug Alcohol Depend, 131(1), 23-35. doi:https://doi.org/10.1016/j.drugalcdep.2013.02.018

Van der Straten, A., Gómez, C. A., Saul, J., Quan, J., Padian, N. (2000). Sexual risk behaviors among heterosexual HIV serodiscordant couples in the era of post-exposure prevention and viral suppressive therapy. AIDS; 14(4): F47–54.

Vanable, P.A., Carey, M.P., Blair, D.C., Littlewood, R.A. (2006). Impact of HIV-related stigma on health behaviors and psychological adjustment among HIV-positive men and women. AIDS Behav. 10 (5), 473–482.

Vandelli, C., Renzo, F., Romano, L., Tisminetzky, S., De Palma, M., Stroffolini, T., Ventura, E., Zanetti, A. (2004). Lack of evidence of sexual transmission of hepatitis C among monogamous couples: results of a 10-year prospective follow-up study. Am J Gastroenterol 99: 855-859.

Vanthuyne, A., Mundt-Leach, R., Boyd, A., Broughton, S., & Pittrof, R. (2016). Sexual and reproductive healthcare provided onsite in an inner-city community drug and alcohol service. J Fam Plann Reprod Health Care, 42(2), 152-154. doi:10.1136/jfprhc-2014-101126

Varni, S.E., Miller, C.T., Solomon, S.E., (2012). Sexual behavior as a function of stigma and coping with stigma among people with HIV/AIDS in rural New England. AIDS Behav. 16 (8), 2330–2339.

Vijayakumar, G., Mabude, Z., Smit, J., Beksinska, M., Lurie, M. (2006). A review of female-condom effectiveness: patterns of use and impact on protected sex acts and STI incidence. Int J STD AIDS; 17(10): 652-659.

Vlahov, D., & Junge, B. (1998). The role of needle exchange programs in HIV prevention. Public Health Reports, 113(Suppl 1), 75-80.

Von Wright, G. H. (1971). Explanation and Understanding. London: Routledge.

Wagner, A. C., Girard, T., McShane, K. E., Margolese, S. L., & Hart, T. A. (2017). HIV-related stigma and overlapping stigmas towards people living with HIV among health care trainees in Canada. AIDS Education and Prevention, 29(4), 364-376.

Walby, S. (1990). Theorizing patriarchy. Oxford: Blackwell Publishers.

Walby, S. (1997). Gender transformations. London: London : Routledge.

Walby, S., Armstrong, J., & Strid, S. (2012). Intersectionality: Multiple Inequalities in Social Theory. Sociology, 46(2), 224-240. doi:10.1177/0038038511416164

Wallerstein, N. (1992). Powerlessness, empowerment, and health: implications for health promotion programs. Am J Health Promot, 6(3), 197-205. doi:10.4278/0890-1171-6.3.197

Wallimann, I., Tatsis, N. C., & Zito, G. V. (1977). On Max Weber's Definition of Power. The Australian and New Zealand Journal of Sociology, 13(3), 231-235. doi:10.1177/144078337701300308

Wang, B. X., Zhang, L., Wang, Y.-j., Yan, J.-w., Wan, Y.-n., Peng, W.-j., & Wang, J. (2013). Epidemiology of syphilis infection among drug users at methadone maintenance treatment clinics in China: systematic review and meta-analysis. Int J STD AIDS, 25(8), 550-558. doi:10.1177/0956462413515444

Wang, K., Brown, K., Shen, S. Y., & Tucker, J. (2011). Social network-based interventions to promote condom use: a systematic review. AIDS Behav, 15(7), 1298-1308. doi:10.1007/s10461-011-0020-1

Wang, Q., Lin, G. (2003). Sex exchange and HIV-related risk behaviors among female heroin users in China. J Drug Issues; 33: 119–32.

Warner, L. R. (2008). A Best Practices Guide to Intersectional Approaches in Psychological Research. Sex Roles, 59(5/6), 454-463. doi:10.1007/s11199-008-9504-5

Watson, M. C., Holland, R., Ferguson, J., Porteous, T., Sach, T., Cleland, J., . . . Wright, D. (2014). Community Pharmacy Management of Minor Illness: the MINA Study. Final report to Pharmacy Research UK. Retrieved from

Watson, T., & Hughes, C. (2012). Pharmacists and harm reduction: A review of current practices and attitudes. Canadian Pharmacists Journal, 145(3), 124-127.

Wechsberg, W. M., Krupitsky, E., Romanova, T., Zvartau, E., Kline, T. L., et al. (2012). Double jeopardy-drug and sex risks among Russian women who inject drugs: initial feasibility and efficacy results of a small randomized controlled trial. Subst Abuse Treat Prev Policy; 7(1): 1.

Weir, S. S., Merli, M. G., Li, J., Gandhi, A. D., Neely, W. W., Edwards, J. K., . . . Chen, X. S. (2012). A comparison of respondent-driven and venue-based sampling of female sex workers in Liuzhou, China. Sex Transm Infect, 88 Suppl 2, i95-101. doi:10.1136/sextrans-2012-050638

Weiss, M. L., Chitwood, D. D., Sanchez, J. (2008). Religiosity, drug use, and HIV-related risk behaviors among heroin injectors. J Drug Issues; 38(3): 883–909.

Weitzer, R. (2009). Sociology of Sex Work. Annual Review of Sociology, 35(1), 213-234. doi:10.1146/annurev-soc-070308-120025

Weller, S., & Davis, K. (2002). Condom effectiveness in reducing heterosexual HIV transmission. Cochrane Database Syst Rev(1), Cd003255. doi:10.1002/14651858.cd003255

Wellings, K., Collumbien, M., Slaymaker, E., Singh, S., Hodges, Z., Patel, D., & Bajos, N. (2006). Sexual behaviour in context: a global perspective. The Lancet, 368(9548), 1706-1728.

West, R. (2013). Theory of addiction (2nd ed. ed.). Chichester: Chichester : Wiley-Blackwell/Addiction Press.

WHO/UNAIDS. (2008). Consultation on STI interventions for preventing HIV: appraisal of the evidence. Geneva: WHO/UNAIDS.

Wiewel, E. W., Bocour, A., Kersanske, L. S., Bodach, S. D., Xia, Q., & Braunstein, S. L. (2016). The Association Between Neighborhood Poverty and HIV Diagnoses Among Males and Females in New York City, 2010-2011. Public health reports (Washington, D.C. : 1974), 131(2), 290-302. doi:10.1177/003335491613100213

Wilkinson, R. G. (1996). Unhealthy societies : the afflictions of inequality. London: London : Routledge.

Wilkinson, R. G. (1997). Comment: income, inequality, and social cohesion. Am J Public Health, 87(9), 1504-1506.

Wilkinson, R. G. (1999). Income Inequality, Social Cohesion, and Health: Clarifying the Theory—A Reply to Muntaner and Lynch. International Journal of Health Services, 29(3), 525-543. doi:10.2190/3QXP-4N6T-N0QG-ECXP

Wilkinson, S. (2015). Focus groups. In J. A. Smith (Ed.), Qualitative Psychology: A practical guide to research methods (3rd ed.). London: Sage.

Williams, C., & Maruthappu, M. (2013). "Healthconomic Crises": Public Health and Neoliberal Economic Crises. Am J Public Health, 103(1), 7-9.

Willig, C. (2013). Introducing qualitative research in psychology (Third edition. ed.): Maidenhead : Open University Press.

Willig, C. (2017). Interpretation in Qualitative Research. In C. Willig & W. Stainton-Rogers (Eds.), The SAGE Handbook of Qualitative Research in Psychology (2nd ed.). Los Angeles: SAGE.

Wilton, L., Herbst, J. H., Coury-Doniger, P., Painter, T. M., English, G., Alvarez, M. E., . . . Carey, J. W. (2009). Efficacy of an HIV/STI Prevention Intervention for Black Men Who Have Sex with Men: Findings from the Many Men, Many Voices (3MV) Project. AIDS Behav, 13(3), 532-544. doi:10.1007/s10461-009-9529-y

Wingood, G. M., DiClemente, R. J. (2000). Application of the theory of gender and power to examine HIV-related exposures, risk factors, and effective interventions for women. Health Educ Behav; 27(5): 539–65.

World Association for Sexual Health. (2014). Declaration of sexual rights. Geneva: WHO.

World Health Organization. (2006). Defining sexual health: Report of a technical consultation on sexual health, 28–31 January 2002. Geneva: WHO.

World Health Organization. (2012). Global incidence and prevalence of selected curable sexually transmitted infections - 2008. Geneva: WHO.

World Health Organization (2013). The economics of the social determinants of health and health inequalities: a resources book. Luxembourg: World Health Organization.

World Health Organization. (2014). Review of social determinants and the health divide in the WHO European Region: final report. Denmark: WHO.

World Health Organization. (2016a). Combating Hepatitis B and C to reach elimination by 2030. Advocacy brief. Geneva: WHO.

World Health Organization. (2016b). Global Health Sector Strategy on HIV, 2016-2021. Towards ending AIDS. Geneva: WHO.

World Health Organization. (2016c). Global Health Sector Strategy on Sexually Transmitted Infections, 2016-2021. Towards Ending STIs. Geneva: WHO.

World Health Organization. (2016d). Global Health Sectors Strategy on Viral Hepatitis, 2016-2021. Towards ending viral hepatitis. Geneva: WHO.

World Health Organization. (2016e). HIV/AIDS. Fact Sheet, July 2016. Retrieved from http://www.who.int/mediacentre/factsheets/fs360/en/

World Health Organization. (2016f). Sexually Transmitted Infections (STIs). Fact sheet, August 2016. Retrieved from http://www.who.int/mediacentre/factsheets/fs110/en/

World Health Organization. (2017). Global Hepatitis Report, 2017. France: WHO.

World Health Organization. (2018a). Equity. Retrieved from http://www.who.int/healthsystems/topics/equity/en/

World Health Organization. (2018b). Health Impact Assessment (HIA). Glossary of terms used. Retrieved from http://www.who.int/hia/about/glos/en/index1.html

World Health Organization. (2018c). Human papillomavirus (HPV) and cervical cancer. Retrieved from http://www.who.int/news-room/fact-sheets/detail/human-papillomavirus-(hpv)-and-cervical-cancer

World Health Organization Regional Office for Europe. (2013). Health 2020: a European policy framework supporting action across government and society for health and well-being. Denmark: WHO.

World Health Organization Regional Office for Europe. (2016). Social justice and human rights as a framework for addressing social determinants of health. Final report of the Task group on Equity, Equality and Human Rights. Review of social determinants of health and the health divide in the WHO European Region. Denmark: WHO.

Wright, N. M. J., & Tompkins, C. N. E. (2006). A review of the evidence for the effectiveness of primary prevention interventions for Hepatitis C among injecting drug users. Harm Reduct J, 3(1), 27. doi:10.1186/1477-7517-3-27

Yardley, L. (2000). Dilemmas in qualitative health research. Psychol Health, 15(2), 215-228. doi:10.1080/08870440008400302

Yardley, L. (2015). Demonstrating Validity in Qualitative Psychology. In J. A. Smith (Ed.), Qualitative Psychology: A practical guide to research methods (3rd ed.). London: Sage.

Yardley, L. (2017). Demonstrating the validity of qualitative research. The Journal of Positive Psychology, 12(3), 295-296. doi:10.1080/17439760.2016.1262624

Yuen, W. W., Tran, L., Wong, C. K., Holroyd, E., Tang, C. S., Wong, W. C. (2016). Psychological health and HIV transmission among female sex workers: a systematic review and meta-analysis. AIDS Care; 28(7): 816–24.

Yun, H., Govender, K., & Mody, B. (2001). Factoring Poverty and Culture into HIV/AIDS Campaigns: Empirical Support for Audience Segmentation. Gazette (Leiden, Netherlands), 63(1), 73-95. doi:10.1177/0016549201063001006

Zimet, G. D., Mays, R. M., & Fortenberry, D. J. (2000). Vaccines Against Sexually Transmitted Infections: Promise and Problems of the Magic Bullets for Prevention and Control. Sexually Transmitted Diseases, 27(1), 49-52.

Zimmerman, M. A. (1990). Taking aim on empowerment research: On the distinction between individual and psychological conceptions. Am J Community Psychol, 18(1), 169-177. doi:10.1007/BF00922695

Zimmerman, M. A. (2000). Empowerment theory: Psychological, organizational, and community levels of analysis Handbook of community psychology. (pp. 43-63). Dordrecht, Netherlands: Kluwer Academic Publishers.

Appendix 1. Copyright Permission

Copyright Clearance Center RightsLink®

Account Info | Help

WILEY

Book: Planning Health Promotion Programs: An Intervention Mapping Approach, 4th Edition
Author: Christine M. Markham Gerjo Kok Guy S. Parcel L. Kay Bartholomew Eldredge Maria E. Fernández Robert A. C. Ruiter
Publisher: John Wiley and Sons
Date: Feb 1, 2016

Logged in as:
Laura Medina Perucha
Account #: 3001392182
LOGOUT

Order Completed

Thank you for your order.

This Agreement between Laura Medina Perucha ("You") and John Wiley and Sons ("John Wiley and Sons") consists of your order details and the terms and conditions provided by John Wiley and Sons and Copyright Clearance Center.

License number	Reference confirmation email for license number
License date	Jan, 15 2019
Licensed Content Publisher	John Wiley and Sons
Licensed Content Publication	Wiley Books
Licensed Content Title	Planning Health Promotion Programs: An Intervention Mapping Approach, 4th Edition
Licensed Content Author	Christine M. Markham Gerjo Kok Guy S. Parcel L. Kay Bartholomew Eldredge Maria E. Fernández Robert A. C. Ruiter
Licensed Content Date	Feb 1, 2016
Licensed Content Pages	1
Type of use	Dissertation/Thesis
Requestor type	University/Academic
Format	Print and electronic
Portion	Figure/table
Number of figures/tables	4
Original Wiley figure/table number(s)	Figure 1.1 (adapted) Figure 4.1 (adapted) Figure 5.1 (adapted) Table 5.6 (adapted)
Will you be translating?	No
Title of your thesis / dissertation	Sexual health and social inequities in women on opioid substitution treatment: what are the opportunities for community pharmacy?
Expected completion date	Feb 2019
Expected size (number of pages)	350
Requestor Location	Ms. Laura Medina Perucha Claverton Down Rd Department of Pharmacy & Pharmacology University of Bath Bath, BA2 7AY United Kingdom Attn: Ms. Laura Medina Perucha

Publisher Tax ID	EU826007151
Billing Type	Invoice
Billing address	Ms. Laura Medina Perucha Claverton Down Rd Department of Pharmacy & Pharmacology University of Bath Bath, United Kingdom BA2 7AY Attn: Ms. Laura Medina Perucha
Total	0.00 GBP

CLOSE WINDOW

Appendix 2. Participant Information Sheet (WOST)

Participant Information Sheet - WRO
Version 5
14/11/2016

IRAS Id: 205701

Department of Pharmacy & Pharmacology
UNIVERSITY OF BATH
Bath BA2 7AY · United Kingdom

A SERVICE TO PROMOTE WOMEN'S SEXUAL HEALTH IN COMMUNITY PHARMACIES IN ENGLAND

We invite you to take part in a research study

- Before you decide whether to take part, it is important for you to understand why the research is being done and what it will involve.
- Please take time to read the information carefully. Discuss it with friends or family if you wish.
- You are free to decide if you want to take part in this study. If you choose not to take part, this will not affect the care or treatment you receive.
- Ask us if there is anything that is not clear or if you would like more information.

Important things that you need to know

- We want to improve the sexual health of women on methadone (and other addiction treatments).
- We want you to help us planning a service for community pharmacies.
- We want to know what you think about pharmacies and pharmacists.
- We want to know if pharmacists could help improving the sexual health of women on methadone (and other addiction treatments).
- We want to ask you to take part in an interview and fill in a short survey. You could also take part in a group discussion with other women.
- Everything that you tell us will be anonymous and confidential.
- You can decide to stop taking part in the study before we analyse the information, and without giving a reason.

Contents

How to contact us

If you have any questions, please contact Ms. Laura Medina-Perucha on **l.medina.perucha@bath.ac.uk** or **01225 384215**; and Dr. Charlotte Dack on **c.n.dack@bath.ac.uk** or **01225 38 3654**

What's involved?

Why are we doing this study?

This study is about what sexual health services for women on methadone (and other addiction treatments) should be like. We want services to prevent infections that can be passed on by having sex, like chlamydia or HIV. Community pharmacies are easy to use and easy to access, so we think they might be good places to offer sexual health services. But this idea depends on what women on methadone think about pharmacies and pharmacists. This is why we want to talk to you. We want to understand what is important to you and what you think about our ideas. In the interview/group discussion we will ask about your sexual health experiences and what you think a good sexual health service might look like.

These interviews are part of a study being done at the University of Bath.

Why am I being asked to take part?

You are being asked to take part because:

- You are a woman above 18 years old.
- You are currently on methadone (or another drug treatment, e.g. buprenorphine) in a community pharmacy in Bath or Bristol.
- You are able to communicate fluently in English.

What would taking part involve?

There are 5 different phases in this study, but you do not need to take part in all of them. Also, the dates below might change.

Phase I. (August 2016 – April 2017)

You will take part in an **interview** for **1h** approx. You will be asked about:

- Safe and unsafe sex
- Relationships
- Sexually transmitted infections
- Pharmacies and pharmacists

After the interview, you will be asked to fill in a short **survey**. This takes **5-10 minutes**. The questions are about sexual health and drug use.

Phase II. (July 2017)

You will take part in a **group discussion** with other women (10 max.) for around **2h**. The talk will be about sexual health in pharmacies.

Phase III. (Oct - Nov 2017)

You will take part in a group discussion with other women (10 max.) for around **2h**. The talk will be about ideas to plan a service to improve sexual health of women on methadone (and other addiction treatments) in pharmacies.

Phase IV. (May 2018)

You will take part in a group discussion with other women (10 max.) for around **2h**. The talk will be to plan materials (e.g. leaflet) for a sexual health service.

Phase V. (September 2018)

You will take part in a group discussion with other women (10 max.) for around **2h**. The talk will be about your opinion on the sexual health service.

→ You will be asked to sign a **consent form** for each phase (you can just write your initials). The interviews and group discussions will be **audio-recorded**. Everything will be **anonymous** and **confidential**.

Where will this study take part?

The interviews, surveys and group discussions will take place in drug or sexual health services, community centres, public spaces (e.g. a café) or at the University of Bath. The exact place will be decided at your convenience once you have decided to participate.

What are the possible benefits of taking part?

We do not expect there to be any direct advantages to you in taking part. However the information you give us will help us to better understand how to improve sexual health of women on methadone (and other drug addiction treatments), in community pharmacy. In addition, your participation will be very important to plan a sexual health service for women that you could use in the future.

As a small token of thanks you will get a £10 Love2Shop voucher, for each time that you take part in the study.

What are the possible disadvantages and risks of taking part?

Taking part in the study is **very unlikely to put you at any risk**. However, we understand that, for some people, sexual health and drug use are very sensitive topics. If you In the event that the interview or group discussions bring up difficult issues for you, the researcher will deal with these sensitively. You can stop taking part at any time, and you will be given contact details of services you could contact for support.

Who are the researchers?

The researcher is Miss. Laura Medina-Perucha, who is a PhD student at the University of Bath. This project is under the supervision of four academics at the University of Bath:

- Dr. Charlotte Dack – lecturer, Department of Psychology.
- Dr. Hannah Family – lecturer, Department of Pharmacy & Pharmacology.
- Dr. Jennifer Scott – senior lecturer, Department of Pharmacy & Pharmacology.

- Professor Julie Barnett – professor, Department of Psychology.

Further Information

What if something goes wrong?

In the unlikely event that you are harmed by taking part in this study, there are no special compensation arrangements. If you want to complain or have any concerns about the way you have been approached or treated during this study, you can always contact us:

- **Miss. Laura Medina-Perucha**
  - Telephone: **01225 384215** *or* e-mail: **l.medina.perucha@bath.ac.uk**
  - Department of Pharmacy & Pharmacology, University of Bath

- **Dr. Charlotte Dack**
  - Telephone: **01225 38 3658** *or* e-mail: **c.n.dack@bath.ac.uk**
  - Department of Psychology, University of Bath

We will give you details of other services that you can contact when you meet us.

For any complaints or concerns you can also contact these services:

Involve
Tel. 0207 336 9444
Email: info@involve.org.uk
33 Corsham Street
N1 6DR, London

Bristol Royal Infirmary
Tel. 0117 342 3604
Marlborough Street
BS2 8HW, Bristol

What will happen if I don't want to carry on with the study?

You can stop taking part at any time, even after you have signed the consent form or started participating. You can also ask to stop the audio-recording at any time and ask that we change or delete anything you have told us. If you no longer want to take part in the study, tell the researcher. You do not have to give a reason. Please bear in mind that, if you decided not to take part any more after starting an interview, a group discussion, or filling in the survey, we will still keep the information that you have already given us. The services that you are receiving will not be affected if you decided to stop taking part/not take part at all in this study.

Will taking part in the study be kept confidential?

Any information will not have your name on it and will not be shared with anyone else who is not part of the study. The interviews and group discussions will be typed up by the researchers and will be anonymous and confidential. All personal information will only be accessed by the main researcher (Miss Laura Medina-Perucha). This information will be kept for up to 12 months after the end of the study, to have enough time to analyse it. The recordings will be destroyed after typing them up your anonymity and confidentiality. Confidentiality will have to be broken if you tell us that you intend to harm yourself or others, and the relevant person (e.g. your drug worker) will have to be informed.

You can see the written report of the stud. If you would like this, please contact Miss Laura Medina-Perucha on **01225 384215** or **l.medina.perucha@bath.ac.uk**

What will happen to the results of the research study?

We may have some of what you say printed in a PhD thesis, a journal or magazine, and might be presented in national and international conferences. If this happens your name and details will always be removed, so that nobody will know whose words they are. If you are interested to know more about the results, please contact Miss Laura Medina-Perucha on **01225 384215** or **l.medina.perucha@bath.ac.uk**

Who is organising and funding the research?

The research is funded by the Department of Pharmacy & Pharmacology and the University of Bath as part of a PhD project. The research has been planned by Miss. Laura Medina-Perucha, Dr. Charlotte Dack, Dr. Hannah Family, Dr. Jennifer Scott and Prof. Julie Barnett, at the University of Bath.

Who has reviewed this study?

This study has been reviewed by the **NHS** ethics committee (IRAS Id. 205701), and the **University of Bath**.

I want to take part – what do I do next?

If you would like to take part, you can contact **Miss. Laura Medina-Perucha** by telephone: **01225 384215** or e-mail: **l.medina.perucha@bath.ac.uk**.

We will contact you as soon as possible to discuss the study with you and plan a convenient time and place to meet.

Appendix 3. Participant Information Sheet (CPs)

Participant Information Sheet - CPs
Version 3.1
28/09/2016

IRAS Id: 205701

Department of Pharmacy & Pharmacology
UNIVERSITY OF BATH
Bath BA2 7AY · United Kingdom

A SERVICE TO PROMOTE WOMEN'S SEXUAL HEALTH IN COMMUNITY PHARMACIES IN ENGLAND

We invite you to take part in a research study

- Before you decide whether to take part, it is important for you to understand why the research is being done and what it will involve.
- Please take time to read the following information carefully. Discuss it with friends or family if you wish.
- You are free to decide whether or not to take part in this study. If you choose not to take part, this will not affect the care or treatment you receive.
- Ask us if there is anything that is not clear or if you would like more information.

Important things that you need to know

- We want to design a service to improve sexual health among women receiving opioid substitution treatment (OST).
- We want to co-design this services. Therefore, we want to understand the views of community pharmacists providing OST on how to provide sexual health services in community pharmacy.
- We want to further understand the relationship of community pharmacist with women receiving OST, and other health professionals.
- We want to know more about the role that community pharmacists could play in promoting sexual health.
- Taking part in this study will involve a one-to-one interview in person. In addition, you could also participate in group discussions at different stages of the project.
- Your participation is anonymous and confidential
- You can stop taking part in the study at any time, without giving a reason.

Contents

How to contact us

If you have any questions, please contact Miss. Laura Medina-Perucha on **l.medina.perucha@bath.ac.uk** or **01225 384215**; and Dr. Charlotte Dack on **c.n.dack@bath.ac.uk** or **01225 38 3654**

What's involved?

Why are we doing this study?

The purpose of this study is to design and test (pilot) a service to improve sexual health of women who are receiving opioid substitution treatment (OST). Specifically, the service will aim to prevent sexually transmitted infections (STIs) (e.g. chlamydia or genital herpes), and blood-borne viruses (BBV) (i.e. HIV, hepatitis B and C). The reason for this is to develop integrative health services, so that we can help improve other aspects of women's health – specifically sexual health. In order to do this, we will ask about women's experiences about their relationships and sexual health.

Community pharmacies are the most accessible health care setting. However, the relationship of pharmacy users with pharmacists is very important for this care to be positive. For this reason, this study will try to understand the relationship between OST users and their pharmacists. Also, we are interested in knowing how pharmacists would feel about providing sexual health advice to their OST patients, and how this would be viewed by women.

This research is part of a PhD project at the University of Bath

Why am I being asked to take part?

You are being asked to take part because:

- You are a community pharmacist
- You are currently providing OST services to women in Bath or Bristol
- You are able to communicate fluently in English

What would taking part involve?

This study is comprised by 5 different phases. Please note that you do NOT need to participate in all the phase of the study. Also, that the dates provided are likely to change over the course of the study.

Phase I. (August 2016 – April 2017)

You will be asked to participate in a one-to-one **interview** in person. The interview will last approximately **1-1.5 hours**. During the interview you will be asked about:

- OST provision
- Health promotion in community pharmacy
- Sexual health needs and services
- Interactions with female OST users
- Sexual health service acceptability and design in community pharmacy

After the interview, you will be asked to fill in a short **survey** about basic demographic information (e.g. age or employment status).

Phase II. (July 2017)

During phase II of the study you will be asked to participate in a **group discussion** (10 people in total), for 2-3 **hours**.

You will be asked to **discuss** about the **opportunities** to improve women's sexual health in community pharmacies.

Phase III. (Oct - Nov 2017)

During phase III of the study you will be asked to participate in a **group discussion** (10 people in total), for 2-3 **hours**.

You will be asked to discuss about some given **ideas** to **design** a **service** to improve women's sexual health. Together with the other participants you will be ask to reach consensus about a **detailed plan**.

Phase IV. (May 2018)

For phase IV you will be asked to participate in a **group discussion** for approximately 2-3 **hours**.

The main purpose of this discussion will be to **critically review** the design **ideas** and **materials** (e.g. leaflet or website platform) of the service.

Phase V. (September 2018)

The service will be tested in community pharmacies in the areas of Bath and Bristol. You will be asked to participate in group discussions about the **effectiveness** of the **service**.

→ You will be asked to sign a **consent form** for each phase. The interviews and group discussions will be **audio-recorded**. Any personal details will be **anonymised** and all information you provide will be **confidential**.

Where will this study take part?

The interviews, surveys and group discussions will take place in community centres, public spaces (e.g. a café), your community pharmacy, or at the University of Bath. The exact place will be decided at your convenience once you have decided if you would like to participate.

What are the possible benefits of taking part?

We do not expect there to be any direct advantages to you in taking part. However the information you give us will help us to better understand how to improve sexual health of women receiving OST, in the context of community pharmacy. In addition, your participation will be very valuable in the design of a sexual health service that you might be able to deliver in the future.

As a small token of thanks you will receive a £10 Love2Shop voucher, for each time that you participate.

What are the possible disadvantages and risks of taking part?

Taking part in the study is **very unlikely to put you at any risk.** However, we understand that, for some people, sexual health and drug use are very sensitive topics. In the event that the interview or group discussions bring up difficult issues for you, the researcher will deal with these sensitively. You may ask to stop participating participating at any time without giving a reason. You will be provided with contact details of services you could ask for assistance to if needed.

Who are the researchers?

The researcher is Miss. Laura Medina-Perucha, who is a PhD student at the University of Bath. This project is under the supervision of four academics at the University of Bath:

- Dr. Charlotte Dack – lecturer, Department of Psychology.
- Dr. Hannah Family – lecturer, Department of Pharmacy & Pharmacology.

- Dr. Jennifer Scott – senior lecturer, Department of Pharmacy & Pharmacology.
- Professor Julie Barnett – professor, Department of Psychology.

Further Information

What if something goes wrong?

In the unlikely event that you are harmed by taking part in this study, there are no special compensation arrangements. However, if you wish to complain or have any concerns about any aspect of the way you have been approached or treated during the course of this study, you can contact:

- **Miss. Laura Medina-Perucha**
  - Telephone: **01225 384215** *or* e-mail: **l.medina.perucha@bath.ac.uk**
  - Department of Pharmacy & Pharmacology, University of Bath

- **Dr. Charlotte Dack**
  - Telephone: **01225 38 3658** *or* e-mail: **c.n.dack@bath.ac.uk**
  - Department of Psychology, University of Bath

You will also be provided with contact details of services you could ask for assistance to.

For any complaints or concerns you can also contact NHS Health at Work and/or Pharmacists support:

NHS Health at Work	**INVOLVE**	**Pharmacists support**
http://www.nhshealthatwork.co.uk/ Tel. 07584 269322 Contact form at http://www.nhshealthatwork.co.uk/contact.asp	www.invo.org.uk Tel. 023 8065 1088 Wessex House, Upper Market Street, Eastleigh, Hampshire, SO50 9FD or	http://www.pharmacistsupport.org/ Tel. 0808 168 2233 info@pharmacistsupport.org

What will happen if I don't want to carry on with the study?

You can stop the interview, survey, and/or group discussions at any time, even after you have signed the consent form or started participating. Also, you can ask to stop the audio-recording at any time and request that we change or delete any wording. If you no longer want to take part in the study, tell the researcher. You do not have to give a reason. Please bear in mind that, if you decide not to participate anymore after starting an interview, a group discussion, or filling in the survey, we will still retain the information that you have already given us.

Will my taking part in the study be kept confidential?

All information from the interview, survey, and/or group discussions will not have your name on it and will not be shared with anyone else who is not part of the study. The interviews will be typed up by the researchers and anonymised. All personal information will only be accessed by the principal investigator (Miss Laura Medina-Perucha). This information will be stored for up to 12 months after the end of the study, in order to have time to analyse all the data. Once your interview has been typed up the interview recording will be destroyed ensuring your participation remains anonymous and confidential. Confidentiality will have to be broken if you disclose that you intend to harm yourself or others, and the relevant person (e.g. your GP) will have to be informed.

You can see the written report of your participation at any time, if you would like this, please contact Miss. Laura Medina-Perucha on **01225 384215** or **l.medina.perucha@bath.ac.uk**

What will happen to the results of the research study?

We may have some of what you say printed in a PhD thesis, a journal or magazine, and might be presented in national and international conferences. If this happens your name and details will always be removed, so that nobody will know whose words they are. If you are interested to know more about the results, please contact Miss. Laura Medina-Perucha on **01225 384215** or l.medina.perucha@bath.ac.uk

Who is organising and funding the research?

The research is funded by the Department of Pharmacy & Pharmacology and the University of Bath as part of a PhD project. The research has been jointly organised by Miss. Laura Medina-Perucha, Dr. Charlotte Dack, Dr. Hannah Family, Dr. Jennifer Scott and Prof. Julie Barnett, University of Bath.

Who has reviewed this study?

This study has been reviewed by the **NHS** ethics committee (IRAS Id. 205701), and through the Department of Pharmacy & Pharmacology, **University of Bath** ethics process.

I want to take part – what do I do next?

If you would like to take part, you can contact **Miss. Laura Medina-Perucha** by telephone: **01225 384215** or e-mail: **l.medina.perucha@bath.ac.uk.**

We will contact you as soon as possible to discuss the research with you and organize a convenient time and place to meet.

Appendix 4. Consent Form (WOST)

Version 4. 25/07/2016
IRAS Id: 205701

Department of Pharmacy & Pharmacology

UNIVERSITY OF BATH

Bath BA2 7AY · United Kingdom

Participant Consent Form

A SERVICE TO PROMOTE WOMEN'S SEXUAL HEALTH IN COMMUNITY PHARMACIES IN ENGLAND

Contact details: Miss. Laura Medina-Perucha, PhD student, Department of Pharmacy & Pharmacology, University of Bath, BA2 7AY (Bath).

	Please initial the box
1. I have read the information about this study Participant Information Sheet version x (xx/xx/xx)	☐
2. I have had the chance to ask questions a. I am happy with the answers I have received	☐
3. I have been given all the information that I need about this study, and what taking part means	☐
4. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason	☐
5. I understand that all the information that I give will be kept strictly confidential (i.e. no one else apart from the researchers will have access to it)	☐
6. I understand that the information I provide will be tape recorded and saved on computer and used for the purposes of this research study only	☐
7. I understand that the results of this study may be published and/or presented in conferences	☐
8. I agree to being contacted to take part in other phases of this study	☐
9. I agree to take part in this study	☐
10. I understand that, by signing this document, I am agreeing on taking part only in phase ___ of this study?	☐

Participant

Signed: _____ Date: _____

Name (CAPITAL LETTERS): _____

Researcher

Signed: _____ Date: _____

Name (CAPITAL LETTERS): _____

Appendix 5. Consent Form (CPs)

Version 4. 25/07/2016
IRAS Id: 205701

Department of Pharmacy & Pharmacology
UNIVERSITY OF BATH
Bath BA2 7AY · United Kingdom

Participant Consent Form (CPs)

A SERVICE TO PROMOTE WOMEN'S SEXUAL HEALTH IN COMMUNITY PHARMACIES IN ENGLAND

Contact details: Ms. Laura Medina-Perucha, PhD student, Department of Pharmacy & Pharmacology, University of Bath, BA2 7AY (Bath).

	Please initial the box
1. I have read the information about this study Participant Information Sheet version x (xx/xx/xx)	☐
2. I have had the opportunity to ask questions	☐
a. If so, I have received satisfactory answers	
3. I have been given enough information about this study and my participation	☐
4. I understand that I can end my participation any time	☐
5. I understand that all the information that I give will be kept strictly confidential	☐
6. I agree to the interview and group discussion being audio-recorded and saved on a computer and used for the purposes of this research study only	☐
7. I understand that the results of this study may be published and/or presented in conferences	☐
8. I agree to being contacted to take part in other phases of this study	☐
9. I agree to participate in this study	☐
10. I understand that, by signing this document, I am agreeing on participating only in phase ___ of this study?	☐

Participant

Signed: _____ Date: _____

Name (CAPITAL LETTERS): _____

Researcher

Signed: _____ Date: _____

Name (CAPITAL LETTERS): _____

Appendix 6. Research Ethics Committee (REC) Approval

NHS
Health Research Authority

North West - Preston Research Ethics Committee
Barlow House
3rd Floor
4 Minshull Street
Manchester
M1 3DZ

Telephone: 020 71048008

03 June 2016

Miss Laura Medina-Perucha
University of Bath
5W 2.52 Department of Pharmacy & Pharmacology
Claverton Down Rd
University of Bath
BA2 7AY

Dear Miss Medina-Perucha

Study title:	**A design of a public health service to promote safe sex among women receiving opioid substitution treatment in community pharmacy**
REC reference:	**16/NW/0432**
IRAS project ID:	**205701**

The Research Ethics Committee reviewed the above application at the meeting held on 27 May 2016. Thank you for being available to discuss the application.

We plan to publish your research summary wording for the above study on the HRA website, together with your contact details. Publication will be no earlier than three months from the date of this favourable opinion letter. The expectation is that this information will be published for all studies that receive an ethical opinion but should you wish to provide a substitute contact point, wish to make a request to defer, or require further information, please contact the REC Manager Mrs Carol Ebenezer, nrescommittee.northwest-preston@nhs.net. Under very limited circumstances (e.g. for student research which has received an unfavourable opinion), it may be possible to grant an exemption to the publication of the study.

Ethical opinion

The members of the Committee present gave a favourable ethical opinion of the above research on the basis described in the application form, protocol and supporting documentation, subject to the conditions specified below. .

Conditions of the favourable opinion

The REC favourable opinion is subject to the following conditions being met prior to the start of the study.

a. The Committee would like to see any necessary paperwork revisions to reflect whether expenses or vouchers will be used.

b. The Committee would like to see the Poster revised to omit reference to Amazon vouchers
c. The Committee would like to see the Participant Information Sheets revised to
    i) State that if they withdraw from the study any data already collected will be retained
    ii) State that if they choose to withdraw it will not affect their medical care
    iii) State that if they disclose information that they are likely to harm themselves or others confidentiality will be broken and the relevant person informed
    iv) State where the interviews and focus groups will take place
    v) State that the recording can be stopped at any time and words deleted or changed
    vi) Include a contact, address, email and telephone number for complaints for someone independent of the research team e.g. PALS or equivalent.
d. The Committee would like to see the Consent Form revised to
    i) Include a clause to consent to the audio recording
    ii) Include the version number and date of the Participant Information Sheet read at point 1

You should notify the REC once all conditions have been met (except for site approvals from host organisations) and provide copies of any revised documentation with updated version numbers. Revised documents should be submitted to the REC electronically from IRAS. The REC will acknowledge receipt and provide a final list of the approved documentation for the study, which you can make available to host organisations to facilitate their permission for the study. Failure to provide the final versions to the REC may cause delay in obtaining permissions.

Management permission must be obtained from each host organisation prior to the start of the study at the site concerned.

Management permission should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements. Each NHS organisation must confirm through the signing of agreements and/or other documents that it has given permission for the research to proceed (except where explicitly specified otherwise).

Guidance on applying for HRA Approval (England)/ NHS permission for research is available in the Integrated Research Application System, at www.hra.nhs.uk or at http://www.rdforum.nhs.uk.

Where a NHS organisation's role in the study is limited to identifying and referring potential participants to research sites ("participant identification centre"), guidance should be sought from the R&D office on the information it requires to give permission for this activity.

For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.

Sponsors are not required to notify the Committee of management permissions from host organisations.

Registration of Clinical Trials

All clinical trials (defined as the first four categories on the IRAS filter page) must be registered on a publically accessible database. This should be before the first participant is recruited but no later than 6 weeks after recruitment of the first participant.

There is no requirement to separately notify the REC but you should do so at the earliest opportunity e.g. when submitting an amendment. We will audit the registration details as part of the annual progress reporting process.

To ensure transparency in research, we strongly recommend that all research is registered but for non-clinical trials this is not currently mandatory.

If a sponsor wishes to request a deferral for study registration within the required timeframe, they should contact hra.studyregistration@nhs.net. The expectation is that all clinical trials will be registered, however, in exceptional circumstances non registration may be permissible with prior agreement from the HRA. Guidance on where to register is provided on the HRA website.

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

Ethical review of research sites

NHS Sites

The favourable opinion applies to all NHS sites taking part in the study taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

Summary of discussion at the meeting

The Chair called you and thanked you for being available to discuss the study. You agreed to the presence of the observer for the discussion and decision on the application.

Social or scientific value; scientific design and conduct of the study
The Committee asked why the research could not be done on both males and females rather than only on females.

You stated that it would be a different intervention and that women were at higher risk. There were issues for women that were not issues for men, but if this works it could be possible to roll it out to men as well.

The Committee accepted this.

The Committee asked whether 30 participants would be recruited or whether recruitment would stop at 20 if data saturation were reached.

You stated that you would recruit a maximum of 30 but that if data saturation were reached at 20 you would stop recruitment at that stage.

The Committee asked whether the reference to video recording on the application was an error.

You confirmed that it was. You will audio record only.

Favourable risk benefit ratio; anticipated benefit/risks for research participants (present and future)
The Committee asked for the reason for issuing Amazon vouchers to those who had participated but not paying their expenses.

You stated that this was a project for a PhD and that there were insufficient funds to pay both.

The Committee asked why the vouchers had been chosen in preference to expenses.

You stated that you had to decide on one or the other.

The Committee suggested it might be preferable to pay expenses but left it to you to decide.

Care and protection of research participants; respect for potential and enrolled participants' welfare and dignity

The Committee considered that an interview of one and a half hours plus focus groups of two to three hours was a long time and a big commitment and asked you whether you had any thoughts on this.

You told the Committee that it would be difficult to do the intervention in less time to get the in depth and relevant discussion.

The members asked if it would be possible to build in breaks.

You stated that this would be done and that you would also provide refreshments.

The Committee noted that service users might be involved in illicit behaviour or domestic abuse issues and asked what would happen if this were discovered.

You said that they would be asked whether they wished to notify someone else and you would refer to your supervisor for the proper procedure. Your supervisor stated that the interviews would be taking place where the participants were receiving care so you would notify the clinical lead or the clinical member of staff most responsible for their care. There would also be a debriefing to ensure they knew where they could seek further help or advice.

The Committee was satisfied with this and asked where the interventions would take place and whether permission has been obtained to use the premises.

You said that it might be in community centres or at the University or within the domestic violence services. They have not yet been approached but you did not think using the premises would be a problem. You confirmed that you would not be in the participants' homes.

The Committee asked whether there was a mechanism for support should the participants become distressed.

You said that the recording would be stopped and time out would be taken if required. The relevant service would be notified if appropriate, and participants would be directed to where they could get further help if needed.

The Committee was satisfied with this answer.

The Committee asked who would transcribe the data.

You said you would do this.

Informed consent process and the adequacy and completeness of participant information

The Committee requested confirmation that it was the intention to reconsent at each stage.

You confirmed this and said that you wished the participants to commit each time.

The Committee asked that the Participant Information Sheet be revised to include the information that if they disclosed information that they were likely to harm themselves or others confidentiality would have to be broken.

The Committee told you that they had found the Participant Information Sheet nicely set out and that it flowed well. However, they would require some changes and these would be detailed in the decision letter.

Suitability of supporting information

The Committee asked that the information on the Amazon vouchers be omitted from the Poster as it could be seen as an inducement.

You had no questions for the Committee.

Approved documents

The documents reviewed and approved at the meeting were:

Document	*Version*	*Date*
Contract/Study Agreement [Student status letter]		20 April 2016
Covering letter on headed paper [Covering letter]		05 May 2016
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only) [Letter of liability insurance confirmation]		05 May 2016
Interview schedules or topic guides for participants [Topic guide WRO]	05/05/2016	05 May 2016
Interview schedules or topic guides for participants [Topic guide CPs]	05/05/2016	05 May 2016
IRAS Application Form [IRAS_Form_16052016]		16 May 2016
IRAS Application Form XML file [IRAS_Form_16052016]		16 May 2016
Letter from sponsor [Sponsorship letters]		05 May 2016
Letters of invitation to participant [Letter of invitation WRO]	1	17 May 2016
Letters of invitation to participant [Letter of invitation CPs]	1	17 May 2016
Non-validated questionnaire [Questionnaire WRO]	1	17 May 2016
Non-validated questionnaire [Questionnaire CPs]	1	17 May 2016
Other [Debriefing CPs Bristol]	2	08 March 2016
Other [Debriefing WRO]	1	16 February 2016
Other [Debriefing CPs Bath]	1	05 May 2016
Other [Research opportunity letter - Everyone included]	1	17 May 2016
Research protocol or project proposal [Protocol]	1	17 May 2016
Summary CV for Chief Investigator (CI) [CV Laura Medina-Perucha]		25 April 2016
Summary CV for student [CV Laura Medina-Perucha]		20 April 2016
Summary CV for supervisor (student research) [CV Dr Hannah Family]		01 April 2016
Summary CV for supervisor (student research) [CV Dr Charlotte Dack]		15 April 2016
Summary CV for supervisor (student research) [CV Dr Jennifer Scott]		20 April 2016
Summary CV for supervisor (student research) [CV Prof Julie Barnett]		25 April 2016
Summary, synopsis or diagram (flowchart) of protocol in non technical language [Lay summary]	1	17 May 2016

Membership of the Committee

The members of the Ethics Committee who were present at the meeting are listed on the attached sheet.

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

After ethical review

Reporting requirements

The attached document "After ethical review – guidance for researchers" gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Notification of serious breaches of the protocol
- Progress and safety reports
- Notifying the end of the study

The HRA website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

User Feedback

The Health Research Authority is continually striving to provide a high quality service to all applicants and sponsors. You are invited to give your view of the service you have received and the application procedure. If you wish to make your views known please use the feedback form available on the HRA website: http://www.hra.nhs.uk/about-the-hra/governance/quality-assurance/

HRA Training

We are pleased to welcome researchers and R&D staff at our training days – see details at http://www.hra.nhs.uk/hra-training/

16/NW/0432	**Please quote this number on all correspondence**

With the Committee's best wishes for the success of this project.

Yours sincerely

pp.

Dr Rob Monks
Chair

E-mail: nrescommittee.northwest-preston@nhs.net

Enclosures: *List of names and professions of members who were present at the meeting and those who submitted written comments*

"After ethical review – guidance for researchers"

Copy to: *Professor Jonathan Knight*
Irene Blair, Bath & NE Somerset CCG

North West - Preston Research Ethics Committee

Attendance at Committee meeting on 27 May 2016

Committee Members:

Name	*Profession*	*Present*	*Notes*
Mr David Abbotts	Lay member	Yes	
Professor Anoop Chauhan	Consultant Cardiologist	Yes	
Mr John Dalton	Lay Member	No	
Professor Carol Haigh	Professor of Nursing	Yes	
Ms Eleanor Jolley	Lay Member	No	
Mrs Kate Kilshaw	Radiographer	Yes	
Dr Rob Monks	Senior Lecturer in Health Sciences	Yes	
Professor Videsh Raut	Consultant Orthopaedic Surgeon	Yes	
Dr Karen Rouse	Senior Lecturer/Clinical Education Coordinator	No	
Mrs Vasanthi Vasudevan	Diabetes Research Nurse	Yes	
Dr Hawys Williams	Lay Member	No	
Dr Karen Wright	Head of School of Nursing	Yes	

Also in attendance:

Name	*Position (or reason for attending)*
Ms Zainab Ahmed	REC Assistant
Cassie Eastham	Research Intern (Observer)
Mrs Carol Ebenezer	REC Manager
Mrs Margaret Hutchinson	Deputy Regional Manager

Appendix 7. Health Research Authority (HRA) Approval

NHS
Health Research Authority

Miss Laura Medina-Perucha
PhD student
University of Bath
5W 2.52 Department of Pharmacy & Pharmacology
Claverton Down Rd
University of Bath
BA2 7AY

Email: hra.approval@nhs.net

17 August 2016

Dear Laura

Letter of HRA Approval

Study title:	**A design of a public health service to promote safe sex among women receiving opioid substitution treatment in community pharmacy**
IRAS project ID:	**205701**
REC reference:	**16/NW/0432**
Sponsor	**University of Bath**

I am pleased to confirm that **HRA Approval** has been given for the above referenced study, on the basis described in the application form, protocol, supporting documentation and any clarifications noted in this letter.

Participation of NHS Organisations in England

The sponsor should now provide a copy of this letter to all participating NHS organisations in England.

Appendix B provides important information for sponsors and participating NHS organisations in England for arranging and confirming capacity and capability. **Please read *Appendix B* carefully**, in particular the following sections:

- *Participating NHS organisations in England* – this clarifies the types of participating organisations in the study and whether or not all organisations will be undertaking the same activities
- *Confirmation of capacity and capability* - this confirms whether or not each type of participating NHS organisation in England is expected to give formal confirmation of capacity and capability. Where formal confirmation is not expected, the section also provides details on the time limit given to participating organisations to opt out of the study, or request additional time, before their participation is assumed.
- *Allocation of responsibilities and rights are agreed and documented (4.1 of HRA assessment criteria)* - this provides detail on the form of agreement to be used in the study to confirm capacity and capability, where applicable.

Further information on funding, HR processes, and compliance with HRA criteria and standards is also provided.

IRAS project ID	205701

It is critical that you involve both the research management function (e.g. R&D office) supporting each organisation and the local research team (where there is one) in setting up your study. Contact details and further information about working with the research management function for each organisation can be accessed from www.hra.nhs.uk/hra-approval.

Appendices

The HRA Approval letter contains the following appendices:

- A – List of documents reviewed during HRA assessment
- B – Summary of HRA assessment

After HRA Approval

The document *"After Ethical Review – guidance for sponsors and investigators"*, issued with your REC favourable opinion, gives detailed guidance on reporting expectations for studies, including:

- Registration of research
- Notifying amendments
- Notifying the end of the study

The HRA website also provides guidance on these topics, and is updated in the light of changes in reporting expectations or procedures.

In addition to the guidance in the above, please note the following:

- HRA Approval applies for the duration of your REC favourable opinion, unless otherwise notified in writing by the HRA.
- Substantial amendments should be submitted directly to the Research Ethics Committee, as detailed in the *After Ethical Review* document. Non-substantial amendments should be submitted for review by the HRA using the form provided on the HRA website, and emailed to hra.amendments@nhs.net.
- The HRA will categorise amendments (substantial and non-substantial) and issue confirmation of continued HRA Approval. Further details can be found on the HRA website.

Scope

HRA Approval provides an approval for research involving patients or staff in NHS organisations in England.

If your study involves NHS organisations in other countries in the UK, please contact the relevant national coordinating functions for support and advice. Further information can be found at http://www.hra.nhs.uk/resources/applying-for-reviews/nhs-hsc-rd-review/.

If there are participating non-NHS organisations, local agreement should be obtained in accordance with the procedures of the local participating non-NHS organisation.

IRAS project ID	205701

User Feedback

The Health Research Authority is continually striving to provide a high quality service to all applicants and sponsors. You are invited to give your view of the service you have received and the application procedure. If you wish to make your views known please email the HRA at hra.approval@nhs.net. Additionally, one of our staff would be happy to call and discuss your experience of HRA Approval.

HRA Training

We are pleased to welcome researchers and research management staff at our training days – see details at http://www.hra.nhs.uk/hra-training/

Your IRAS project ID is **205701**. Please quote this on all correspondence.

Yours sincerely

Sharon Northey
Senior Assessor

Email: hra.approval@nhs.net

Copy to: *Professor Jonathan Knight [Sponsor contact]*
Irene Blair, Bath & NE Somerset CCG [R&D contact]

NIHR CRN Portfolio Applications Team

IRAS project ID	205701

Appendix A - List of Documents

The final document set assessed and approved by HRA Approval is listed below.

Document	*Version*	*Date*
Contract/Study Agreement [Student status letter]		20 April 2016
Copies of advertisement materials for research participants [CP]	2	08 June 2016
Copies of advertisement materials for research participants [WRO]	2	08 June 2016
Covering letter on headed paper [Covering letter]		05 May 2016
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only) [Letter of liability insurance confirmation]		05 May 2016
Interview schedules or topic guides for participants [Topic guide WRO]	05/05/2016	05 May 2016
Interview schedules or topic guides for participants [Topic guide CPs]	05/05/2016	05 May 2016
IRAS Application Form [IRAS_Form_16052016]		16 May 2016
Letter from sponsor [Sponsorship letters]		05 May 2016
Letters of invitation to participant [Letter of Invitation - CP]	3	25 July 2016
Letters of invitation to participant [Letter of Invitation - WRO]	2	25 July 2016
Non-validated questionnaire [Questionnaire WRO]	1	17 May 2016
Non-validated questionnaire [Questionnaire CPs]	1	17 May 2016
Other [Debriefing CPs Bath]	2	08 March 2016
Other [Debriefing CPs Bristol]	2	08 March 2016
Other [Debriefing WRO]	1	16 February 2016
Other [Debriefing CPs Bath]	1	05 May 2016
Other [Research opportunity letter - Everyone included]	1	17 May 2016
Other [Statement of Activities - Drug Services]	3	17 August 2016
Other [Statement of Activities - Sexual Health Services]	3	17 August 2016
Other [Schedule of Events - CPs]	1	10 August 2016
Other [Schedule of Events - Drug Services]	2	17 August 2016
Other [Schedule of Events - Sexual Health Services]	2	17 August 2016
Other [Statement of Activities - CPs]	3	17 August 2016
Participant consent form [Consent form - CPs]	4	25 July 2016
Participant consent form [Consent form - WRO]	4	25 July 2016
Participant information sheet (PIS) [Participant Information Sheet - CPs]	3	25 July 2016
Participant information sheet (PIS) [Participant Information Sheet - WRO]	4	25 July 2016
Research protocol or project proposal [Protocol]	7	25 July 2016
Response to Additional Conditions Met		08 June 2016
Summary CV for Chief Investigator (CI) [CV Laura Medina-Perucha]		25 April 2016
Summary CV for student [CV Laura Medina-Perucha]		20 April 2016
Summary CV for supervisor (student research) [CV Dr Hannah Family]		01 April 2016
Summary CV for supervisor (student research) [CV Dr Charlotte Dack]		15 April 2016
Summary CV for supervisor (student research) [CV Dr Jennifer Scott]		20 April 2016

IRAS project ID	205701

Summary CV for supervisor (student research) [CV Prof Julie Barnett]		25 April 2016
Summary, synopsis or diagram (flowchart) of protocol in non technical language [Lay summary]	1	17 May 2016

IRAS project ID	205701

Appendix B - Summary of HRA Assessment

This appendix provides assurance to you, the sponsor and the NHS in England that the study, as reviewed for HRA Approval, is compliant with relevant standards. It also provides information and clarification, where appropriate, to participating NHS organisations in England to assist in assessing and arranging capacity and capability.

For information on how the sponsor should be working with participating NHS organisations in England, please refer to the, *participating NHS organisations, capacity and capability* and *Allocation of responsibilities and rights are agreed and documented (4.1 of HRA assessment criteria)* sections in this appendix.

The following person is the sponsor contact for the purpose of addressing participating organisation questions relating to the study: Professor Jonathan Knight (pro-vc-research@bath.ac.uk, 01225383162)

HRA assessment criteria

Section	HRA Assessment Criteria	Compliant with Standards	Comments
1.1	IRAS application completed correctly	Yes	Please note that whilst IRAS form (A43) shows that personal data will be stored 6-12 months the researcher has confirmed that personal data will be kept for between 12 months - 3 years.
2.1	Participant information/consent documents and consent process	Yes	Following REC favourable opinion the Participant Information Sheets Informed Consent forms and Participant Invitation letters have had a minor amendment to bring them in line with HRA standards. The current versions are approved as part of the HRA approval. No further approvals are required.
3.1	Protocol assessment	Yes	Following REC favourable opinion the Protocol has had a minor amendment to bring it in line with HRA standards. The current version is approved as part of the HRA approval. No further approvals are required.
4.1	Allocation of responsibilities and rights are agreed and	Yes	The statement of activities will act as the research agreement between the sponsor and the NHS organisation.

IRAS project ID	205701

Section	HRA Assessment Criteria	Compliant with Standards	Comments
	documented		
4.2	Insurance/indemnity arrangements assessed	Yes	Where applicable, independent contractors (e.g. General Practitioners) should ensure that the professional indemnity provided by their medical defence organisation covers the activities expected of them for this research study
4.3	Financial arrangements assessed	Yes	Funding is not being provided to NHS organisations.
5.1	Compliance with the Data Protection Act and data security issues assessed	Yes	No comments
5.2	CTIMPS – Arrangements for compliance with the Clinical Trials Regulations assessed	Not Applicable	No comments
5.3	Compliance with any applicable laws or regulations	Yes	No comments
6.1	NHS Research Ethics Committee favourable opinion received for applicable studies	Yes	No comments
6.2	CTIMPS – Clinical Trials Authorisation (CTA) letter received	Not Applicable	No comments
6.3	Devices – MHRA notice of no objection received	Not Applicable	No comments
6.4	Other regulatory approvals and authorisations received	Not Applicable	No comments

IRAS project ID	205701

Participating NHS Organisations in England

This provides detail on the types of participating NHS organisations in the study and a statement as to whether the activities at all organisations are the same or different.
All participating NHS organisations will identify potential participants, provide information packs and hold interviews and focus groups. Community pharmacists will hold interviews and focus groups with staff. NHS Drug services and NHS Sexual Health services will hold interviews and focus groups with women receiving opioid treatment. Some participants may also be recruited outside the NHS. HRA approval does not cover activity outside the NHS. Before recruiting outside the NHS the research team must follow the procedures and governance arrangements of responsible organisations. The Chief Investigator or sponsor should share relevant study documents with participating NHS organisations in England in order to put arrangements in place to deliver the study. The documents should be sent to both the local study team, where applicable, and the office providing the research management function at the participating organisation. For NIHR CRN Portfolio studies, the Local LCRN contact should also be copied into this correspondence. For further guidance on working with participating NHS organisations please see the HRA website. If chief investigators, sponsors or principal investigators are asked to complete site level forms for participating NHS organisations in England which are not provided in IRAS or on the HRA website, the chief investigator, sponsor or principal investigator should notify the HRA immediately at hra.approval@nhs.net. The HRA will work with these organisations to achieve a consistent approach to information provision.

Confirmation of Capacity and Capability

This describes whether formal confirmation of capacity and capability is expected from participating NHS organisations in England.
Participating NHS organisations in England that are undertaking the research **will be expected to formally confirm their capacity and capability to host this research**. • Following issue of this letter, participating NHS organisations in England may now confirm to the sponsor their capacity and capability to host this research, when ready to do so. How capacity and capacity will be confirmed is detailed in the *Allocation of responsibilities and rights are agreed and documented (4.1 of HRA assessment criteria)* section of this appendix. • The Assessing, Arranging, and Confirming document on the HRA website provides further information for the sponsor and NHS organisations on assessing, arranging and confirming capacity and capability.

IRAS project ID	205701

Principal Investigator Suitability

This confirms whether the sponsor position on whether a PI, LC or neither should be in place is correct for each type of participating NHS organisation in England and the minimum expectations for education, training and experience that PIs should meet (where applicable).
Local collaborators are expected to be in place at each NHS organisation to assist with participant identification and to help with room bookings. GCP training is not a generic training expectation, in line with the HRA statement on training expectations.

HR Good Practice Resource Pack Expectations

This confirms the HR Good Practice Resource Pack expectations for the study and the pre-engagement checks that should and should not be undertaken
A letter of access will be expected to be in place with standard DBS checks and occupational health clearance for the Drug Services and Sexual Health services NHS organisations.

Other Information to Aid Study Set-up

This details any other information that may be helpful to sponsors and participating NHS organisations in England to aid study set-up.
• The applicant has indicated that they intend to apply for inclusion on the NIHR CRN Portfolio. • HRA Assessment is applicable to NHS organisations.

Appendix 8. Recruitment Poster (WOST)

Version 1
08.06.2016

Department of Pharmacy & Pharmacology
UNIVERSITY OF BATH
Bath BA2 7AY · United Kingdom

Women's sexual health study

Who can participate?

We are looking for women who are currently receiving **opioid substitution treatment** in the areas of Bath & Bristol

What does participating involve?

You will be asked to take part in:

- **One-to-one interviews** & **survey**

...and/or

- **Group discussions**

Why should I take part?

- You will help co-design a health service that you may benefit from in the future

What should I do next?

For further information contact:

Miss. Laura Medina-Perucha

Telf. **01225 384215**

Email: **lmp36@bath.ac.uk**

Department of Pharmacy & Pharmacology
University of Bath
BA2 7AY (Bath)

Laura
01225 384215
lmp36@bath.ac.uk

Appendix 9. Letter of Invitation (CPs)

Department of Pharmacy & Pharmacology
UNIVERSITY OF BATH
Bath BA2 7AY · United Kingdom

Version 3
25/07/2016
IRAS Id: 205701

24/01/2017

Dear Rachel,

Re. Letter of invitation to participate in a research project to develop a public health service in community pharmacy on sexual health for women receiving opioid substitution treatment

We would like to invite you to take part in a research from the Department of Pharmacy & Pharmacology, University of Bath. For this study, we are interested in designing a public health service on sexual health for women who are receiving treatment with methadone or buprenorphine in community pharmacies in Bath and Bristol. The main objective of this service will be to prevent sexually transmitted infections and blood-borne viruses (i.e. HIV, Hepatitis B and C).

For this project, we are aiming to recruit community pharmacists who are currently providing opioid substitution treatment in Bath and Bristol.

We would like you to take part in an individual face-to-face interview, a short demographics questionnaire, and/or group discussion with other community pharmacists about the opportunity and feasibility of developing this sexual health service. The individual interviews will last between 1 and 2 hours approximately (together with the demographics questionnaire), and the group discussions around 2-3 hours. There will be a total of 5 opportunities for you to participate (1 interview and demographics questionnaire, and 4 group discussions).

As a token of thanks, all participants will receive a £10 Love2Shop voucher for each time that they participate in the study.

For more information please contact Miss **Laura Medina-Perucha** (Lead researcher):
l.medina.perucha@bath.ac.uk or **01225 384215**

Thank you very much for your interest.

Yours sincerely,

Laura Medina-Perucha.
PhD Candidate
Department of Pharmacy & Pharmacology
Claverton Down Rd, University of Bath
BA2 7 AY, Bath (United Kingdom)

Appendix 10. Social Media Post (CPs)

Title: Community pharmacists for a study at the University of Bath

Please note that this research has received NHS ethics approval (REC Ref. 16/NW/0432 // IRAS ID 205701), and ethical approval from the University of Bath.

Compared to the general population, the risk of sexually transmitted infections and blood-borne viruses is higher among individuals who use opioids (e.g. heroin), women being particularly vulnerable. The University of Bath has funded a PhD study **to explore the role of community pharmacists in preventing sexually transmitted infections and blood-borne viruses among opioid substitution treatment female clients**. *This study will aim to design and pilot a public health service to promote safe sex among women receiving opioid substitution treatment in community pharmacies.* This research will determine the feasibility and potential effectiveness of this service.

For this study, we are hoping to recruit **20 community pharmacists providing opioid substitution treatment** in the areas of Bath and Bristol. Participating will involve a *one-to-one interview, filling in a short questionnaire, and/or participating in group discussions*. All the data collected will be anonymized and confidential.

If you have any questions or would like to take part, please contact Laura Medina-Perucha at **l.medina.perucha@bath.ac.uk** or **01225 384215**

Thank you very much for your time & looking forward to hearing from you soon!
Best wishes,
Laura.

Appendix 11. Questionnaire (WOST)

Department of Pharmacy & Pharmacology
UNIVERSITY OF BATH
Bath BA2 7AY · United Kingdom

A service to promote women's sexual health
Questionnaire

Version 1
17.05.2016

Please answer the following questions, either by typing the answers, or circling the option that best describes you. ***Please note that you are free to refuse to answer these questions, and that will not affect your participation in this study.***

General information

1. What is your age? _____

2. What is your primary language?
   - ☐ English
   - ☐ Non-English
     - ☐ If so, specify: _____

3. What is your ethnic group?
   - ☐ English/Welsh/Scottish/Northern Irish/British
   - ☐ Irish
   - ☐ Gypsy or Irish Traveller
   - ☐ White European
   - ☐ White non-European
   - ☐ White and Black Caribbean
   - ☐ White and Black African
   - ☐ White and Asian
   - ☐ Indian
   - ☐ Pakistani
   - ☐ Bangladeshi
   - ☐ Chinese
   - ☐ African
   - ☐ Caribbean
   - ☐ Arab
   - ☐ Other: _____

4. What is the highest qualification that you have got?
   - ☐ No academic qualifications
   - ☐ O Level/Scottish Higher or equivalent (NVQ/SVQ Level 2)
   - ☐ A Level/Scottish Higher or equivalent (NVQ/SVQ Level 3)
   - ☐ Higher National Diploma/Higher National Certificate (HCN/HND)
   - ☐ Diploma of Higher Education
   - ☐ Other Undergraduate Qualification (Including Professional)
   - ☐ First Degree with Qualified Teacher Status
   - ☐ First Degree
   - ☐ Other Qualifications at First Degree Level (Including Professional)

- ☐ Postgraduate certificate of Education (PGCE)
- ☐ Other Postgraduate Qualification (Including Professional)
- ☐ Doctorate
- ☐ Other Higher Degree
- ☐ Other Qualification: _____

5. What is your relationship status?

- ☐ Single
- ☐ In a relationship
- ☐ Cohabitating
- ☐ Married
- ☐ Separated
- ☐ Divorced
- ☐ Widowed
- ☐ Other: _____

6. Are you a parent or guardian of a child/children?

- ☐ Yes, of _____ children
- ☐ No

7. Who do you currently live with? (*circle all the options that apply to you*)

- ☐ Alone
- ☐ Children
- ☐ Partner
- ☐ Parent/s
- ☐ Friend/s
- ☐ Housemate/s
- ☐ None of the above
  - ☐ If so, please give more details: _____

8. Which of these best describes you?

- ☐ I work 16 hours or more
- ☐ I work less than 16 hours a week
- ☐ I am self-employed
- ☐ I am not working
- ☐ I am in full-time education (16 hours or more a week)
- ☐ I am in part-time education (less than 16 hours a week)

- ☐ I am retired
- ☐ I am a housewife
- ☐ I am an unpaid carer
- ☐ None of these
  - ☐ If so, please specify: _____

9. Which of these income bands best describes your current financial situation?
   - ☐ £0 to £4,999
   - ☐ £5,000 to £9,999
   - ☐ £10,000 to £14,999
   - ☐ £15,000 to £19,999
   - ☐ £20,000 to £24,999
   - ☐ £25,000 to £29,999
   - ☐ £35,000 to £39,000
   - ☐ £40,000 to £49,999
   - ☐ £50,000 to £74,999
   - ☐ £75,000 to £99,999
   - ☐ More than £100,000
   - ☐ Prefer not to say

Opioid substitution treatment

10. What form of OST are you receiving at the moment?
    - ☐ Methadone
    - ☐ Buprenorphine
    - ☐ Buprenorphine/Naloxone (Suboxone)
    - ☐ Other: _____
    - ☐ I don't know

11. Do you feel OST is working (i.e. being effective) for you?
    - ☐ Yes ☐ No

12. For how long have you been on OST this time?

    _____

13. Had you previously received OST?

- ☐ No
- ☐ Yes, _____ times in total (not counting your current treatment)

Drug use

14. What drugs have you used in the past? (*tick all the options that apply to you*).

Please note that any information that you provide is strictly confidential.

- ☐ None
- ☐ Tobacco
- ☐ Alcohol
- ☐ Benzodiazepines (e.g. diazepam or clonazepam)
- ☐ GHB/GBL (liquid ecstasy)
- ☐ Ketamine
- ☐ Anabolic steroids
- ☐ Benzylpiperazines (BZP) (smileys/PEP)
- ☐ Amphetamines (speed)
- ☐ Methamphetamine
- ☐ Barbiturates
- ☐ Codeine
- ☐ Cannabis
- ☐ Cathinones (magic crystals)
- ☐ Synthetic cannabinoids (Spice)
- ☐ Heroin
- ☐ Cocaine
- ☐ Crack cocaine
- ☐ Methadone
- ☐ Ecstasy (MDMA)
- ☐ LSD
- ☐ Magic mushrooms
- ☐ Other: _____

15. What drugs are you currently using? (*tick all the options that apply to you*)

Please note that any information that you provide is strictly confidential.

- ☐ None
- ☐ Tobacco
- ☐ Alcohol
- ☐ Benzodiazepines (e.g. diazepam or clonazepam)
- ☐ GHB/GBL (liquid ecstasy)
- ☐ Ketamine
- ☐ Anabolic steroids
- ☐ Benzylpiperazines (BZP) (smileys/PEP)
- ☐ Amphetamines (speed)
- ☐ Methamphetamine
- ☐ Barbiturates
- ☐ Codeine
- ☐ Cannabis
- ☐ Cathinones (magic crystals)
- ☐ Synthetic cannabinoids (Spice)
- ☐ Heroin
- ☐ Cocaine

- ☐ Crack cocaine
- ☐ Methadone
- ☐ Ecstasy (MDMA)
- ☐ LSD (liquid acid)
- ☐ Magic mushrooms
- ☐ Other: _____

16. How often do you attend your pharmacy to get OST?

- ☐ Every day
- ☐ Every two days
- ☐ Twice a week
- ☐ Once a week
- ☐ Once every two weeks
- ☐ Once a month
- ☐ Other: _____

Sexual health history

17. How many sexual partners have you had?

- ☐ I haven't had sex
- ☐ _____ partners

18. Have you had sex with:

- ☐ Men
- ☐ Women
- ☐ Both

19. What types of sex have you had? (*tick all the options that apply to you*)

- ☐ Oral
- ☐ Vaginal
- ☐ Anal

20. Have you ever participated in sex work?

- ☐ Yes
- ☐ No

21. Have you ever been tested for any of the following? (*tick all the options that apply to you*)

- ☐ Chlamydia
- ☐ Genital warts
- ☐ Genital Herpes
- ☐ Gonorrhoea
- ☐ Syphilis
- ☐ Hepatitis B
- ☐ Hepatitis C
- ☐ HIV
- ☐ Trichomoniasis
- ☐ Pubic lice
- ☐ Scabies
- ☐ Other: _____
- ☐ I have never been tested for any of these

If so, how many times have you been tested? _____

If so, how often do you get tested?

- ☐ Every time I have a new partner
- ☐ Every _____ months/years (*circle the appropriate word)*
- ☐ Only when I have symptoms
- ☐ Other: _____

If so, where have you been previously tested? (*tick all the options that apply to you*)

- ☐ Pharmacy
- ☐ GP
- ☐ Hospital
- ☐ Sexual health clinic
- ☐ Genito-Urinary Medicine (GUM) clinic
- ☐ Drug service
- ☐ Other: _____

22. Have you ever been <u>diagnosed</u> with any of the following? (*tick all the options that apply to you*)

- ☐ I have never been diagnosed with an STI or BBV
- ☐ Chlamydia
- ☐ Genital warts
- ☐ Genital Herpes
- ☐ Gonorrhoea
- ☐ Syphilis
- ☐ Hepatitis B
- ☐ Hepatitis C
- ☐ HIV
- ☐ Trichomoniasis
- ☐ Pubic lice
- ☐ Scabies
- ☐ Other: _____
- ☐ I have never been diagnosed with any of these

If so, how many times have you been diagnosed with any of these? _____

23. Have you ever had a smear test result?

- ☐ No
- ☐ Yes
  - ☐ If so, did you have any other tests?

    _____
  - ☐ If so, what was the advice and/or treatment that you received?

    _____

A service to promote women's sexual health

Questionnaire

Version 1
17.05.2016

24. Which safe sex methods do you <u>currently</u> use when you have sex? (*tick all the options that apply to you*)

- ☐ I don't have sex
- ☐ Oral barriers (dental dam)
- ☐ Male condoms
- ☐ Female condoms
- ☐ None
- ☐ Other: _____

25. Have you ever been pregnant?

- ☐ Never
- ☐ _____ times
- ☐ Prefer not to say

26. Have you ever had a miscarriage?

- ☐ Never
- ☐ _____ times
- ☐ Prefer not to say

27. Have you ever had terminated a pregnancy?

- ☐ Never
- ☐ _____ times
- ☐ Prefer not to say

28. Do you feel that you have been sexually abused at some point in your life?

- ☐ Yes
- ☐ No
- ☐ Prefer not to say

Appendix 12. Questionnaire (CPs)

A service to promote women's sexual health
Questionnaire

Department of Pharmacy & Pharmacology
UNIVERSITY OF BATH
Bath BA2 7AY · United Kingdom

Version 1
17.05.2016

Please answer the following questions, either by typing the answers, or circling the option that best describes you. ***Please note that you are free to refuse to answer these questions, and that will not affect your participation in this study.***

1. What is your gender?
   - ☐ Female
   - ☐ Male

2. What is your age? _____

3. What is your primary language?
   - ☐ English
   - ☐ Non-English
     - ☐ If so, specify: _____

4. What is the highest qualification that you have got?
   - ☐ No academic qualifications
   - ☐ O Level/Scottish Higher or equivalent (NVQ/SVQ Level 2)
   - ☐ A Level/Scottish Higher or equivalent (NVQ/SVQ Level 3)
   - ☐ Higher National Diploma/Higher National Certificate (HCN/HND)
   - ☐ Diploma of Higher Education
   - ☐ Other Undergraduate Qualification (Including Professional)
   - ☐ First Degree with Qualified Teacher Status
   - ☐ First Degree
   - ☐ Other Qualifications at First Degree Level (Including Professional)
   - ☐ Postgraduate certificate of Education (PGCE)
   - ☐ Other Postgraduate Qualification (Including Professional)
   - ☐ Doctorate
   - ☐ Other Higher Degree
   - ☐ Other Qualification: _____

5. What is your ethnic group?

- ☐ English/Welsh/Scottish/Northern Irish/British
- ☐ Irish
- ☐ Gypsy or Irish Traveller
- ☐ White European
- ☐ White non-European
- ☐ White and Black Caribbean
- ☐ White and Black African
- ☐ White and Asian
- ☐ Indian
- ☐ Pakistani
- ☐ Bangladeshi
- ☐ Chinese
- ☐ African
- ☐ Caribbean
- ☐ Arab
- ☐ Other: _____

6. Which of these best describes you?
   - ☐ I work 16 hours or more
   - ☐ I work less than 16 hours a week
   - ☐ I am self-employed
   - ☐ I am in part-time education (less than 16 hours a week)
   - ☐ I am an unpaid carer
   - ☐ Other: _____

7. What is your job title?
   - ☐ Superintendent pharmacist
   - ☐ Pharmacy manager
   - ☐ Pharmacy owner
   - ☐ Responsible pharmacist
   - ☐ Pharmacist
   - ☐ Independent prescribing pharmacist
   - ☐ Other: _____

8. How long have you been a pharmacist (years, months)? _____

9. What is the name of your pharmacy? _____

10. What type of pharmacy is it?
    - ☐ National chain
    - ☐ Medium chain

A service to promote women's sexual health
Questionnaire

Version 1
17.05.2016

- ☐ Small chain
- ☐ Independent pharmacy

11. What is the pharmacy location?

- ☐ Co-located with GP surgery
- ☐ Supermarket
- ☐ Health & beauty store
- ☐ Village centre
- ☐ Town centre
- ☐ City centre
- ☐ Rural

12. What is the dispensing volume of your pharmacy in a typical day? _____

13. What type of services is your pharmacy providing?

Advanced

- ☐ Medication Use Reviews (MUR)
- ☐ New Medicine Service (NMS)
- ☐ Stoma Appliance Customization (SAC)
- ☐ Application Use Reviews (AUR)
- ☐ Flu Vaccination
- ☐ None

Locally Commissioned

- ☐ Alcohol Screening and Brief Intervention
- ☐ Anticoagulant Monitoring Service
- ☐ Care Home Support and Advice
- ☐ Chlamydia Screening and Treatment
- ☐ Vaccination Services
- ☐ Domiciliary Support
- ☐ Emergency Hormonal Contraception
- ☐ Emergency Supply
- ☐ Minor Ailments Service
- ☐ Needle and Syringe Programmes
- ☐ NHS Health Check
- ☐ Out of Hours (Access to Medicines)
- ☐ Sharps Disposal Service
- ☐ Stop Smoking
- ☐ Supervised Administration
- ☐ Weight Management Service

Private services

- ☐ Please specify:

_____

_____

A service to promote women's sexual health

Questionnaire

_____

_____

14. Are you responsible for providing opioid substitution treatment for your pharmacy?

- ☐ Yes
  - If so, for how long have you been providing this service?

    _____
- ☐ No
  - If so, who is the responsible for providing this service in your pharmacy?

    _____

Appendix 13. Debriefing Form (WOST)

Debriefing form
Version 2
14.11.2016

Department of Pharmacy & Pharmacology
UNIVERSITY OF BATH
Bath BA2 7AY · United Kingdom

A SERVICE TO PROMOTE WOMEN'S SEXUAL HEALTH IN COMMUNITY PHARMACIES IN ENGLAND

Thank you for taking part in this study! Your participation is really valuable to us.

Purpose of the study

We previously informed you that the purpose of this study is to co-design and test (pilot) a service to improve the sexual health of women who are receiving opioid substitution treatment in community pharmacies. Your participation in the study will be used to inform the consecutive phases of the study, and pilot the service in several community pharmacies in the areas of Bristol and Bath.

Final Report

The final report of this study will be finalised around January 2019. If you would like a summary of the findings, and/or have further information about your participation, please let us know using the contact details below.

Any questions or concerns?

If you have any questions about the research having taken part, or any concerns please contact the researcher on the details below.

You can also contact external services that may be of your interest:

Bristol Drugs Project
11 Brunswick Square
BS2 8PE (Bristol)
Tel. 0117 987 6000
Email: info@bdp.org.uk
http://www.bdp.org.uk

Rock Hall
34 Oldfield Road
BA2 3ND (Bath)
Tel. 01225 359900
http://www.awp.nhs.uk

Turning Point
Standon House
21 Mansell Street
E1 8AA (London)
Tel. 020 7481 7600
info@turning-point.co.uk
http://www.turning-point.co.uk

To **test** for sexually transmitted infections (e.g. Chlamydia) and blood-borne viruses (i.e. HIV, Hepatitis B and C) you can ask your drug worker, GP or pharmacist. You can also go to your closest GUM or Sexual health clinic:

Debriefing form
Version 2
14.11.2016

Riverside Health Centre Bath
James St W
BA1 2BT, Bath
Tel. 01225 831593 or 01225 474242
https://www.sirona-cic.org.uk/services/contraception-and-sexual-health-service/

Royal United Hospital
Department of Sexual Health and HIV Medicine
Building E1
Combe Park
BA1 3NG, Bath
Tel. 01225 824617 or 01225 824558
Email: ruh-tr.sexualhealthclinic@nhs.net
http://www.ruh.nhs.uk/sexualhealth/about_us/index.asp

Keynsham Health Centre
St Clement's Road
BS31 1A, Keynsham
Tel. 01225 831593 or 0117 9461059
https://www.sirona-cic.org.uk/services/contraception-and-sexual-health-service/

Bristol Sexual Health Centre (Central Health Clinic)
Tower Hill, Avon
BS2 0JD, Bristol
Tel. 0117 3426900
http://www.uhbristol.nhs.uk/patients-and-visitors/your-hospitals/other-services-in-bristol/bristol-sexual-health-services/

How to contact us

For further information contact Ms. Laura Medina-Perucha on **01225 384215** or **l.medina.perucha@bath.ac.uk**

Appendix 14. Debriefing Form (CPs in Bath)

Debriefing form
Version 2. 08.03.2016

Department of Pharmacy & Pharmacology
UNIVERSITY OF BATH
Bath BA2 7AY · United Kingdom

A SERVICE TO PROMOTE WOMEN'S SEXUAL HEALTH IN COMMUNITY PHARMACIES IN ENGLAND

Thank you for taking part in this study! Your participation is really valuable to us.

Purpose of the study

We previously informed you that the purpose of this study is to co-design and test (pilot) a service to improve the sexual health of women who are receiving opioid substitution treatment in community pharmacies. Your participation in the study will be used to inform the consecutive phases of the study, and pilot the service in several community pharmacies in the areas of Bristol and Bath.

Final Report

The final report of this study will be finalised around January 2019. If you would like a summary of the findings, and/or have further information about your participation, please let us know using the contact details below.

Any questions or concerns?

If you have any questions about the research having taken part, or any concerns please contact the researcher on the details below.
You can also contact external services that may be of your interest:

NHS Health at Work
http://www.nhshealthatwork.co.uk/
Tel. 07584 269322
Email: contact form at http://www.nhshealthatwork.co.uk/contact.asp

Pharmacists support
http://www.pharmacistsupport.org/
Tel. 0808 168 2233
Email: info@pharmacistsupport.org

Royal United Hospital Bath – Sexual health Clinic
Building E1
Royal United Hospital
BA1 3NG, Bath
Tel. 01225 824617 / 01225 824558
Email: ruh-tr.sexualhealthclinic.nhs.net

How to contact us

For further information contact Ms. Laura Medina-Perucha on **01225 384215** or **l.medina.perucha@bath.ac.uk**

Appendix 15. Debriefing Form (CPs in Bristol)

Debriefing form
Version 2. 08.03.2016

Department of Pharmacy & Pharmacology
UNIVERSITY OF BATH
Bath BA2 7AY · United Kingdom

A SERVICE TO PROMOTE WOMEN'S SEXUAL HEALTH IN COMMUNITY PHARMACIES IN ENGLAND

Thank you for taking part in this study! Your participation is really valuable to us.

Purpose of the study

We previously informed you that the purpose of this study is to co-design and test (pilot) a service to improve the sexual health of women who are receiving opioid substitution treatment in community pharmacies. Your participation in the study will be used to inform the consecutive phases of the study, and pilot the service in several community pharmacies in the areas of Bristol and Bath.

Final Report

The final report of this study will be finalised around January 2019. If you would like a summary of the findings, and/or have further information about your participation, please let us know using the contact details below.

Any questions or concerns?

If you have any questions about the research having taken part, or any concerns please contact the researcher on the details below.
You can also contact external services that may be of your interest:

NHS Health at Work
http://www.nhshealthatwork.co.uk/
Tel. 07584 269322
Email: contact form at http://www.nhshealthatwork.co.uk/contact.asp

Pharmacists support
http://www.pharmacistsupport.org/
Tel. 0808 168 2233
Email: info@pharmacistsupport.org

Bristol Sexual Health Centre
Tower Hill, BS2 0JD, Bristol
Tel. 0117 342 6900
http://www.uhbristol.nhs.uk/patients-and-visitors/your-hospitals/other-services-in-bristol/bristol-sexual-health-services/clinics-and-appointments/

How to contact us

For further information contact Ms. Laura Medina-Perucha on **01225 384215** or **l.medina.perucha@bath.ac.uk**

Appendix 16. Interview Guide (WOST)

Concept	Question	Prompts
Introduction		
Safe/unsafe sex	We all have very different opinions and views about what safe and unsafe sex are. It would be very helpful to know what you think about this.	What about oral sex?
Factors to safe/unsafe sex	What do you think are the reasons for people to have safe sex?	What about unsafe sex?
Relationship type	Do you think the type of relationship (e.g. if you are in a long-term relationship, or you have a one-night stand) is an important factor to have safe sex?	What about unsafe sex?
Sex work	Some women have previously told me that they have participated in sex work. They also told me that, in that situation, they were a lot more confident telling clients to use condoms, compared to men they were in a relationship with. What are your views on this?	
Partner's attitudes towards sex	What is your opinion on the importance of a sexual partner's attitudes towards sex?	How does this influence having safe/unsafe sex?

Negotiation/communication skills	Now that we are discussing about how sex is different depending on your partner, some people also find very difficult to discuss using a condom or sexual health status (e.g. if they have been screened or diagnosed with an STI). What are your views on this?	
Sexual preferences	We all have different preferences when it comes to sex. For example, people have different sexual orientations, or like to have sex in different way. How do you think that could be linked to having safe or unsafe sex?	Anal, oral, vaginal sex BDSM (Bondage & Discipline, Domination & Submission, Sadism & Masochism)
Libido	Do you believe that have high or low libido has something to do with someone's decision to use condoms or not?	
Knowledge about STIs and BBVs	So… the two main reasons for women to have safe sex are to avoid pregnancy, and to avoid getting a sexually transmitted infection. There are a lot of different infections that are transmitted through sex (I had personally no idea about most of them until I started this project!). Would you know what these infections are?	Where have you got that information from? • Have you ever received advice from a health professional (e.g. pharmacist, or GP) about STIs and BBV? • Any health campaign?
History of STIs and BBVs	Have you ever had tests or screening for any of these?	What was the result of those tests?

	Have you had the HPV vaccine?	What do you know about it?
Risk perceptions	Thinking about past and current relationships, we all normally find it quite difficult to think that we will get an STI or a BBV. Have you ever experiences that before?	How do you think people decide if they are at risk or not?
(Start closing) *– All the things that we have been talking about today have been really helpful so far. I would like to ask you just a few more questions now about the experiences with health professionals, and particularly with your community pharmacist.*		
Health promotion in community pharmacy	As you may know, there are different health professionals that we could ask for advice if we are concerned about sexually transmitted infections and contraceptive methods. Because there are pharmacies everywhere, and we do not normally need to book an appointment with our pharmacist, community pharmacists are very important in giving advice about safe sex practices. What are your views on this?	Have you ever come across a service like that in your pharmacy?
Relationship with community pharmacist	How would you describe your relationship with your pharmacist?	Why good? If bad – how could it be improved?
Opportunities to obtain health advice in community pharmacy	Have you had the opportunity to ask for health advice to your pharmacist?	Would you be willing to?

Sexual health in community pharmacy	Have you ever received sexual health information in your pharmacy?	How would you feel if you received advice on safe sex when you go to the pharmacy to get your *methadone*?
	And the last question – this study is looking to do you think that it is a good idea to develop a service to encourage people to have safe sex in community pharmacies?	Do you have any ideas on what this service could include?
Thank you very much for answering my questions, all the information that you have given me will be very useful indeed. Before we finish though, I would like to ask you if you have any questions, or you would like to make any final comments (?) *Also – would you be interested in being contacted to participate in following phases of the study?*		
Closing		

Appendix 17. Interview Topic Guide (CPs)

Concept	Question	Prompts
Introduction		
OST provision – experiences, positive and negative aspects of this service provision, attitudes towards providing OST and OST users	Could you tell me a little bit about the OST services that you provide in your community pharmacy?	What is your experience providing OST?
		What would you say the positive aspects of providing this service are (if any)?
		What are the negative aspects of it (if any)?
Provision of health promotion services – knowledge, attitudes, views	I would like to ask you now about health promotion services, e.g. general health checks or smoking cessation. What health promotion activities do you routinely provide?	What other related services in community pharmacy do you know about?
		What about sexual health services (e.g. emergency hormonal contraception, contraception, STI screening, fertility)?
		If not at the moment, have you provided such services in the past?
	What are your views on providing these services in community pharmacy?	Do you think there is a need for this services to be implemented in community pharmacies?
		Is it feasible? ((Explore this after their answer))
		What is your personal experience providing them?

	Do you provide any of these services to women receiving OST?	Tell me a little bit more about this…
Needs for sexual health services for WRO	We are also interviewing women who are OST users, and one of the things that we are exploring are the factors that might lead to have safe or unsafe sex. It would also be very helpful to know the community pharmacists' perspectives on this. What factors do you think that make people have safe sex?	What about unsafe sex?
	What kind of advice do you give patients on safe sex?	
	What are your experiences in this area with women receiving OST?	What other forms of support do you give at the moment to women receiving OST?
Sex work	Some women receiving OST have mentioned that they have engaged in commercial sex at some point in their life, and this has been identified as a risk factor to contract an STI or BBV. Have you encountered this with your clients?	
	If you know that someone is sex working, what would you do?	(If there is nothing that they would o) – what are the reasons for this?

Provision of sexual health services – knowledge, attitudes	As I have mentioned before, this study is specifically looking at improving the sexual health of women who are receiving OST. However, it would be useful to know about sexual health services that you know about for the general population through community pharmacy?	Do you provide this kind of services?
		Have you ever provided this kind of services in the past?
		What are your views on providing these services?
Relationship with WRO – attitudes, prejudice, stigma	How would you describe your interactions with women receiving OST?	
	Other pharmacists have mentioned that they have had problems with some clients when they come in to get their OST (e.g. they have felt intimidated, they have had arguments, or some service users have stolen something from the pharmacy, etc.). Have you found yourself in any, or other similar, situations?	
	How do you feel about working with this client group?	And what about this particular topic (i.e. sexual health)?
Views and attitudes towards the study/health programme	So, the main aim of this study is to design a service in community pharmacies to promote safe sex among women receiving OST. What are your views on providing services to	What are the positives and negatives of implementing an intervention like this one in community pharmacy?

	prevent STIs and BBV infections in community pharmacies, for women receiving OST?	Should anything be done/changed in order to implement this service? (e.g. workload/time pressure, financial issues, training)
		Within your pharmacy, who do you think could provide this kind of service?
		Do you believe that service users would be keen on receiving sexual health information when coming to get their *methadone*?
Design ideas for health promotion service	Do you have any idea of the type of service that community pharmacists could provide (e.g. short consultation, referral, or information provision giving leaflets out)?	
(Start the closing) *– All the things that we have been talking about today have been really helpful and interesting so far. I would like to ask you a few last questions now the training that community pharmacists receive and have access to.*		
Training	What are your views on the training for community pharmacists in relation to OST provision?	What about sexual health?
	If you were to provide sexual health services for women receiving OST, would you be happy with the training that you have had already?	
	Could you tell me a little bit about the training on sexual health that you have had in the past?	Was that related to the provision of OST?

		Has the training that you have had included guidance on consultation skills to deal with difficult situations? (Tell me about this training)
Thank you very much for answering my questions, all the information that you have given me will be very useful indeed. Before we finish though, I would like to ask you if you have any questions, or you would like to make any final comments (?) *Also – would you be interested in being contacted to participate in following phases of the study?*		
Closing		

Appendix 18. Focus Group Guide (WOST)

PHASE I – Focus group WRO
Version 2
11.09.2017

Aims Phase I

1. Explore the needs of WRO in relation to STI and BBV prevention
2. Explore and identify the wide range of factors associated to safe/unsafe sex among WRO
3. Explore the opportunities for improvement in relation to STI and BBV prevention in community pharmacies
4. Explore the potential role of community pharmacists promoting safe sex practices among WRO
5. Explore the acceptability and feasibility of implementing a safe sex health promotion service in community pharmacy
6. Explore initial design ideas on the health promotion programme

Reminder – the tasks of Phase I are:

1) To establish and work with a planning group
2) To plan and conduct a needs assessment
3) To describe the context for the health programme
4) To state the programme goals (*what will change, for whom, by how much, and over what time*)

Structure

1. General information about the study + consent
2. Feed back data from interviews/SLR (provide visual material)
    a. Factors for safe/unsafe sex
3. Ask for their thoughts and feelings on the interviews' data
4. Closure
    a. Thank you!
    b. Vouchers
    c. Debriefing form
    d. Next steps of study and interest to keep involved

What do I need for the focus group?

1. Refreshments (tea, coffee, cookies/cake)
2. Topic guide
3. PIS Phase II
4. Consent form
5. Questionnaire
6. Debriefing form
7. Vouchers
8. Acknowledgement of payment form
9. Recorder (x2) – request Psychology Dpt
10. Notepad

Appendix 19. Focus Group Guide (CPs)

PHASE I – Focus group CP
Version 1
17.08.2017

Aims Phase I

1. Explore the needs of WRO in relation to STI and BBV prevention
2. Explore and identify the wide range of factors associated to safe/unsafe sex among WRO
3. Explore the opportunities for improvement in relation to STI and BBV prevention in community pharmacies
4. Explore the potential role of community pharmacists promoting safe sex practices among WRO
5. Explore the acceptability and feasibility of implementing a safe sex health promotion service in community pharmacy
6. Explore initial design ideas on the health promotion programme

Reminder – the tasks of Phase I are:

1) To establish and work with a planning group
2) To plan and conduct a needs assessment
3) To describe the context for the health programme
4) To state the programme goals (*what will change, for whom, by how much, and over what time*)

Structure

1. Presentations
2. General information about the study + consent
3. Ground rules
4. Feedback data from interviews/SLR (provide visual material)
    a. Factors for safe/unsafe sex
5. Ask for their thoughts on the interviews' data
6. Feedback data from interviews/SLR (provide visual material)
    a. Views of community pharmacists on health promotion in the pharmacy
7. Feedback data from interviews/SLR (provide visual material)
    a. What could be done in community pharmacy? Ideas for the service & barriers/challenges
8. Ask for their thoughts on the interviews' data
9. Closure
    a. Thank you!
    b. Vouchers + debriefing form
    c. Next steps of study and interest to keep involved

PHASE I – Focus group CP
Version 1
17.08.2017

What do I need for the focus group?

1. Room booking!
2. Refreshments (tea, coffee, cookies/cake?)
3. Topic guide
4. PIS
5. Consent form
6. Questionnaire
7. Debriefing form
8. Vouchers
9. Acknowledgement of payment form
10. Recorder (x2) – request Psychology Dpt
11. Notepad
12. Co-facilitator! (*Jenny*)

Appendix 20. Research Dissemination

Data from this study has been disseminated throughout the study. This study has been presented at national and international conferences (see Tables A20.1 and A20.2): Society for the Study of Addiction, STI & HIV World Congress, European Public Health Conference, and at the European Health Psychology Society Conference. Oral presentations on this study have been also given at the University of Bath. Manuscripts have been written and sent to peer-reviewed journals.

The outline of presentations and publications can be found below:

Table A20.1

Oral Presentations

Authors	Presentation title	Conference details
Medina-Perucha L., Scott J., Dack C., Chapman S., Family H. & Barnett J.	*A qualitative study on intersectional stigma, violence and STI/BBV risk among women on opioid substitution treatment in England: Implications for research and practice* (*under review*).	IUSTI European & World Congress 2018, Dublin (Ireland); June 2018.
Medina- Perucha L., Dack C., Family H., Scott J., Chapman S., & Barnett J.	Psychosocial factors of sexual risks among women using heroin and other drugs: A systematic literature review.	Health & Clinical Research Theme Seminar, University of Bath (United Kingdom); February 2018.
Medina-Perucha L., Dack C., Scott J., Family H., Chapman S. & Barnett J.	*Promoting sexual health among women on opioid treatment in community pharmacy: A qualitative study.*	Society for the Study of Addiction PhD Symposium 2017, Newcastle (United Kingdom); November 2017.
Medina-Perucha L., Family H., Dack C., Scott J. & Barnett J.	*Promoting sexual health among women on opioid treatment in community pharmacy: A qualitative study.*	European Public Health Conference 2017, Stockholm (Sweden); November 2017.
Medina-Perucha L., Family H., Dack C., Scott J. & Barnett J.	*Psychosocial determinants of sexual practices among women using heroin and other drugs: A systematic literature review.*	STI & HIV World Congress 2017, Rio de Janeiro (Brazil); July 2017.

Table A20.2

Poster Presentations

Authors	Presentation title	Conference details
Medina-Perucha L., Scott J., Dack C., Chapman S., Family H. & Barnett J.	*Intersectional stigma and the prevention of sexually transmitted infections and blood borne viruses: Implications for the design of a pharmacy based service for women on opioid substitution treatment.*	European Public Health Conference 2018, Ljubljana (Slovenia); November 2018.
Medina-Perucha L., Scott J., Dack C., Chapman S., Family H. & Barnett J.	*Using Intervention Mapping to design a sexual health service for women on opioid substitution treatment.*	European Health Psychology Conference 2018, Galway (Ireland); August 2018.
Medina-Perucha, L. Dack C., Family H., Scott J. & Barnett J.	*Psychosocial factors of sexual practices among women using heroin and other drugs: A systematic literature review.*	Society for the Study of Addiction Annual Symposium 2017, Newcastle (United Kingdom); November 2017.
Medina-Perucha L., Dack C., Family H., Scott J. & Barnett J.	*Study protocol: Design and pilot of a sexual health service for women receiving opioid substitution treatment in community pharmacy.*	Society for the Study of Addiction Annual Symposium 2016, York (United Kingdom); November 2016.

Publications

Medina-Perucha L., Scott J., Chapman S., Barnett J., Dack C. & Family H. (*under review*). Sexual health services for women on opioid substitution treatment: The role of community pharmacies. *European Journal of Public Health.*

Medina-Perucha L., Scott J., Chapman S., Barnett J., Dack C. & Family, H. (2019). A qualitative study on intersectional stigma and sexual health among women on opioid substitution treatment in England: Implications for research, policy and practice. *Social Science & Medicine*, *222*, 315-322.

Medina-Perucha L., Family H., Scott J., Chapman S. & Dack C. (2018). Factors associated with sexual risks and risk of STIs, HIV and other blood-borne viruses among women using heroin and other drugs: A systematic literature review. *AIDS & Behavior*. DOI: 10.1007/s10461-018-2238-7.

Medina-Perucha L., Dack C., Scott J., Family H. & Barnett J. (2017). Promoting sexual health among women on opioid treatment in community pharmacy: A qualitative study. *The European Journal of Public Health, 27* (3). DOI 10.1093/eurpub/ckx187.071

Medina-Perucha L., Family H., Dack C, Scott J. & Barnett J. (2017). Psychosocial determinants of sexual practices among women using heroin and other drugs: A systematic literature review. *Sexually Transmitted Infections, 93,* Suppl 2, A19 008.6.

The dissemination of findings and research training were supported by several bursaries and awards to attend international conferences (see Table A20.3).

Table A20.3

Bursaries and awards to attend conferences and training courses

Awarding body	Amount	Date	Awarded for
British Psychological Society	£200	19/11/2016	IUSTI World Congress 2016 (Marrakech, Morocco)
British Psychological Society	£1000	22/01/2016	Intervention Mapping (University of Maastricht, The Netherlands)
Department of Pharmacy & Pharmacology (University of Bath)	£250	05/02/2016	IUSTI World Congress 2016 (Marrakech, Morocco)
Psychology Postgraduate Affairs Group (PsyPAG)	£100	30/03/2016	Intervention Mapping (University of Maastricht, The Netherlands)
Alumni Fund (University of Bath)	£250	15/07/2016	Intervention Mapping Course (University of Maastricht, The Netherlands)
Society for the Study of Addiction	£350	29/07/2016	Society for the Study of Addiction 2016 annual symposium (York, United Kingdom)
British Psychological Society	£350	03/04/2017	STI & HIV World Congress 2017 (Rio de Janeiro, Brazil)
Fran Trust	£500	19/04/2017	STI & HIV World Congress 2017 (Rio de Janeiro, Brazil)

Society for the Study of Addiction	£350	03/05/2017	Society for the Study of Addiction 2017 annual symposium (Newcastle, United Kingdom)
Department of Pharmacy & Pharmacology (University of Bath)	£240	15/05/2017	STI & HIV World Congress 2017 (Rio de Janeiro, Brazil)
British Association for Sexual Health and HIV (BASHH)	£1087	18/05/2017	STI & World Congress 2017 (Rio de Janeiro, Brazil)
Alumni Fund (University of Bath)	£250	06/07/2017	European Public Health Conference 2017 (Stockholm, Sweden)
Psychology Postgraduate Affairs Group (PsyPAG)	£300	14/08/2017	STI & HIV World Congress 2017 (Rio de Janeiro, Brazil)
Santander Mobility Award (Santander Universities)	£1016	14/04/2018	IUSTI European & World Congress 2018 (Dublin, Ireland)
Foundation for the Sociology of Health & Illness	£800	18/05/2018	IUSTI European & World Congress 2018 (Dublin, Ireland)
British Psychological Society	£400	14/07/2018	European Public Health Conference 2018 (Ljubljana, Slovenia)

Appendix 21. Substantial Amendment I

Dear Miss Medina-Perucha,

Further to the below, I am pleased to confirm that HRA Approval has been issued for the referenced amendment, following assessment against the HRA criteria and standards.

The sponsor should now work collaboratively with participating NHS organisations in England to implement the amendment as per the below categorisation information. This email may be provided by the sponsor to participating organisations in England to evidence that the amendment has HRA Approval.

Please contact hra.amendments@nhs.net for any queries relating to the assessment of this amendment.

Kind regards,

Eleanor

Dr Eleanor Ashworth | HRA Assessment
Health Research Authority

HRA, Ground Floor, Skipton House, 80 London Road, London, SE1 6LH
E: eleanor.ashworth@nhs.net

www.hra.nhs.uk

The HRA is keen to know your views on the service you received – our short feedback form is available **here**

From: nrescommittee.northwest-preston@nhs.net [mailto:nrescommittee.northwest-preston@nhs.net]
Sent: 24 January 2017 11:12
To: l.medina.perucha@bath.ac.uk; pro-vc-research@bath.ac.uk
Cc: I.Blair@bath.ac.uk
Subject: IRAS 205701. Confirmation of REC Validation and Categorisation of Amendment

Dear Miss Medina-Perucha,

IRAS Project ID:	**205701**
REC Reference:	**16/NW/0432**
Short Study Title:	**A public health service to promote safe sex**
Date complete amendment submission received:	**19 January 2017**
Amendment No./ Sponsor Ref:	**1**
Amendment Date:	**15 January 2017**

Amendment Type:	**Substantial**

Thank you for submitting the above referenced amendment. I am pleased to confirm that this amendment has been submitted to the REC for ethical review. Please find attached a copy of the validation letter.

Categorisation of Amendment

In line with the UK Process for Handling UK Study Amendments I can confirm that this amendment has been categorised as:

Category A - An amendment that has implications for, or affects, ALL participating NHS organisations

You should now provide this email, together with the amended documentation, to the research management support offices **and** local research teams at your participating NHS organisations in England.

Subject to the three conditions below, you will be able to implement the amendment at your participating NHS organisations in England **35 days after you notify them of the amendment.** A template email to notify participating NHS organisations in England is provided here.

You may not implement this amendment until and unless you receive all required regulatory approvals, including REC favourable opinion, (for participating organisations in England, this includes receiving confirmation of HRA Approval for the amendment). You should provide regulatory approvals to the research management support offices and local research teams at your participating NHS organisations in England, plus to local research teams at any participating NHS organisations in Northern Ireland, Scotland or Wales*.

You may not implement this amendment at any participating NHS organisations which inform you within the 35 day period that they require additional time to consider the amendment, until they notify you that the considerations have been satisfactorily completed.

You may not implement this amendment at any participating NHS organisation that informs you that it is no longer able to undertake this study.

Note: you may only implement changes described in the amendment notice or letter.

If you receive required regulatory approvals (for participating organisations in England, this includes confirmation that the amendment has been granted HRA Approval) after the 35 days have passed, you may then immediately implement this amendment at all participating NHS organisations that have not requested additional review time, or are no longer able to undertake this study.

There is no need for you to receive a letter of confirmation from the participating organisation that the amendment can be implemented, as the intended date of implementation is communicated through the above process. However, you may be able to implement this amendment ahead of the 35 day deadline, if all necessary regulatory approvals are in place and the participating organisation has confirmed that the amendment may be implemented ahead of the 35 day date.

Please do not hesitate to contact me if you require further information.

BW

Carol

Carol Ebenezer | REC Manager
Health Research Authority
3rd Floor

Barlow House

4 Minshull St

Manchester

M1 3HY
E: nrescommittee.northwest-preston@nhs.net | T: 02071048008 |
www.hra.nhs.uk

The HRA is keen to know your views on the service you received – our short feedback form is available **here**

IMPORTANT – **Click here** for the latest details of the roll-out of HRA Approval in England

The HRA is keen to know your views on the service you received – our short feedback form is available **here**

Appendix 22. Substantial Amendment II

Dear Laura,

Many thanks for confirming this. You will hopefully have seen by now that the amendment has been approved. I wish you the best with the continuing research.

Kind regards,
Chris

Dr Chris Kitchen

Assessor

Health Research Authority

3rd Floor, Barlow House, 4 Minshull Street, Manchester, M1 3DZ

T. 0207 104 8193

E. hra.approval@nhs.net

W. www.hra.nhs.uk

Sign up to receive our newsletter HRA Latest.

From: Laura Medina Perucha [mailto:L.Medina.Perucha@bath.ac.uk]
Sent: 11 December 2017 16:11
To: KITCHEN, Chris (HEALTH RESEARCH AUTHORITY); Pro-Vice-Chancellor for Research
Subject: RE: IRAS 205701. Amendment confirmation of REC Validation, categorisation and implementation information

Dear Dr Kitchen,

Thank you for your email.

Regarding the "snowballing sampling": we are proposing to ask participants (both service users and pharmacists) to voluntarily inform other potential participants about the study. It would be a word-of-mouth chain-referral sampling. None of the participants will be informed of who has previously taken part in the study, so confidentiality will always be ensured throughout the recruitment.

Please let me know if you have any further questions/concerns.

Kind regards,

Laura.

From: KITCHEN, Chris (HEALTH RESEARCH AUTHORITY) [mailto:chris.kitchen@nhs.net]
Sent: 08 December 2017 13:03
To: Laura Medina Perucha <L.Medina.Perucha@bath.ac.uk>; Pro-Vice-Chancellor for Research <pro-vc-research@bath.ac.uk>
Cc: I.Blair@bath.ac.uk

Subject: RE: IRAS 205701. Amendment confirmation of REC Validation, categorisation and implementation information

Dear Miss Medina-Perucha,

Thank you for submitting the below amendment for assessment under HRA Approval. I note that the REC has now issued its opinion of the amendment, but from the assessment side, I had one query on which I would appreciate your response.

I note that the change in recruitment strategy will involve using professional contacts and snowballing. Please could you clarify precisely how the snowballing aspect of this will work? In particular, please clarify who will be approached to provide suggestions for further participants in the study, and who those further participants may be (e.g. service users, pharmacists etc.).

Please do not hesitate to contact me if you require any further clarification.

Kind regards,

Chris Kitchen

Dr Chris Kitchen

Assessor

Health Research Authority

3rd Floor, Barlow House, 4 Minshull Street, Manchester, M1 3DZ

T. 0207 104 8193

E. hra.approval@nhs.net

W. www.hra.nhs.uk

Sign up to receive our newsletter HRA Latest.

From: nrescommittee.northwest-preston@nhs.net [mailto:nrescommittee.northwest-preston@nhs.net]
Sent: 04 December 2017 12:17
To: l.medina.perucha@bath.ac.uk; pro-vc-research@bath.ac.uk
Cc: I.Blair@bath.ac.uk
Subject: IRAS 205701. Amendment confirmation of REC Validation, categorisation and implementation information

---

Amendment Confirmation of REC Validation, Categorisation and Implementation Information

Dear Miss Medina-Perucha,

Thank you for submitting an amendment to your project. Please find attached a copy of the REC validation letter for the submitted amendment.

If you have participating NHS/HSC organisations in any other UK nations we will forward the information to the relevant national coordinating function(s).

Please note that you may only implement changes described in the amendment notice.

What Happens Next?

When available, please forward any other regulatory approvals that are expected for this amendment to hra.amendments@nhs.net. However, you do not need to forward the REC favourable opinion as we will be able to access this through our systems.

Information Specific to Participating NHS Organisations in England

You should now share your notice of amendment and, if applicable, amended documents, together with this email, with all participating NHS organisations in England. In doing so, you should include the NHS R&D Office, LCRN (where applicable) as well as the local research team. A template email to notify participating NHS organisations in England is provided on the HRA website.

The participating NHS organisations in England should prepare to implement this amendment.

Your amendment will be reviewed by the REC, as per the attached letter. In parallel to this, an assessment against HRA standards will take place.

Once the REC Favourable Opinion is issued, any other regulatory approvals are in place and the HRA assessment has been successfully completed, you will receive an email confirming that your amendment has HRA Approval.

You may implement your amendment at all participating NHS organisations in England 35 calendar days from the day on which you provide the organisations with this email and your amended documents (or as soon as the participating NHS organisation confirm that you may implement, if sooner), so long as you have HRA Approval for your amendment by this date. **NHS organisations do not have to confirm they are happy with the amendment.** If HRA Approval is issued subsequent to this date, you may implement following HRA Approval.

You may not implement the amendment at any participating NHS organisations in England that requests additional time to assess, until it confirms that it has concluded its assessment.

You may not implement at any participating NHS organisation in England that declines to implement the amendment.

IRAS Project ID:	205701
Short Study Title:	A public health service to promote safe sex
Date complete amendment submission received:	22 November 2017

Amendment No./ Sponsor Ref:	2
Amendment Date:	27 November 2017
Amendment Type:	Substantial
Outcome of HRA Assessment	**HRA Approval for the amendment is pending.** The HRA will separately confirm HRA Approval for the amendment by email.
Implementation date in NHS organisations in England	35 days from date amendment information together with this email, is supplied to participating organisations **(provided HRA Approval for the amendment is in place and conditions above are met)**
For NHS/HSC R&D Office information	
Amendment Category	A

If you have any questions about the ethical review of this amendment, please do not hesitate to contact me.

If you have any questions relating to the wider HRA approval process, please direct these to hra.approval@nhs.net.

If you have any questions relating this amendment in one of the devolved administrations, please direct these to the relevant national coordinating function.

Additional information on the management of amendments can be found in the IRAS guidance.

Please do not hesitate to contact me if you require further information.

Kind regards

Mrs Carol Ebenezer

REC Manager

Health Research Authority

Ground Floor | Skipton House | 80 London Road | London | SE1 6LH

E.hra.amendments@nhs.net

W. www.hra.nhs.uk

Sign up to receive our newsletter HRA Latest.

Appendix 23. Non-Substantial Amendment I

NHS
Health Research Authority

North West - Preston Research Ethics Committee
Barlow House
3rd Floor
4 Minshull Street
Manchester
M1 3DZ

Tel: 020 71048008

Please note: This is the favourable opinion of the REC only and does not allow the amendment to be implemented at NHS sites in England until the outcome of the HRA assessment has been confirmed.

26 January 2017

Miss Laura Medina-Perucha
5 West 2.52
Department of Pharmacy and Pharmacology
University of Bath
BA2 7AY

Dear Miss Medina-Perucha

Study title:	**A design of a public health service to promote safe sex among women receiving opioid substitution treatment in community pharmacy**
REC reference:	**16/NW/0432**
Amendment number:	**1**
Amendment date:	**15 January 2017**
IRAS project ID:	**205701**

Changes to recruitment procedure and PIS and debriefing

The above amendment was reviewed by the Sub-Committee in correspondence.

Ethical opinion

The members of the Committee taking part in the review gave a favourable ethical opinion of the amendment on the basis described in the notice of amendment form and supporting documentation.

The members noted the point in the application re data collection in a café and wished to remind you that at the main meeting you had not indicated that this would be done in a café although it

was on the application form. The Committee wished to point out that this should only be done as a last resort as there were implications for data security in a public place.

There were no other ethical issues with this amendment.

Approved documents

The documents reviewed and approved at the meeting were:

Document	*Version*	*Date*
Notice of Substantial Amendment (non-CTIMP)	1	15 January 2017
Other [Debriefing WRO v1]	1	16 February 2016
Other [Debriefing WRO v2.1]	2.1	14 December 2016
Other [v2 Summary of Changes]	2	15 January 2017
Other [v4.1 Participant info sheet WRO]	4.1	28 September 2016
Participant information sheet (PIS) [v1 Participant info sheet WRO. Phase I]	5.1	13 December 2016
Participant information sheet (PIS) [v1 Participant info sheet WRO. Phase II]	5.1	13 December 2016
Participant information sheet (PIS) [v1 Participant info sheet WRO. Phase III]	5.1	13 December 2016
Participant information sheet (PIS) [v1 Participant info sheet WRO. Phase IV]	5.1	13 December 2016
Participant information sheet (PIS) [v1 Participant info sheet WRO. Phase V]	5.1	13 December 2016

Membership of the Committee

The members of the Committee who took part in the review are listed on the attached sheet.

Working with NHS Care Organisations

Sponsors should ensure that they notify the R&D office for the relevant NHS care organisation of this amendment in line with the terms detailed in the categorisation email issued by the lead nation for the study.

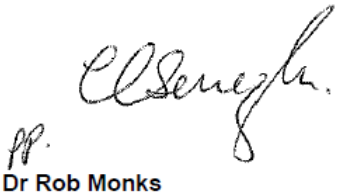
Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

We are pleased to welcome researchers and R & D staff at our Research Ethics Committee members' training days – see details at http://www.hra.nhs.uk/hra-training/

16/NW/0432:	Please quote this number on all correspondence

Yours sincerely



Dr Rob Monks
Chair

E-mail: nrescommittee.northwest-preston@nhs.net

Enclosures: *List of names and professions of members who took part in the review*

Copy to: *Irene Blair, Bath & NE Somerset CCG*
Professor Jonathan Knight

North West - Preston Research Ethics Committee

Attendance at Sub-Committee of the REC meeting on 26 January 2017

Committee Members:

Name	*Profession*	*Present*	*Notes*
Professor Carol Haigh	Professor of Nursing	Yes	
Dr Rob Monks	Principal Lecturer in Nursing, Research and Innovation Lead	Yes	

Also in attendance:

Name	*Position (or reason for attending)*
Mrs Carol Ebenezer	REC Manager

Appendix 24. Non-Substantial Amendment II

Dear Miss Medina-Perucha

IRAS Project ID:	205701
Short Study Title:	A public health service to promote safe sex
Date complete amendment submission received:	3 October 2016
Amendment No./ Sponsor Ref:	Non Substantial Amendment 1
Amendment Date:	30 September 2016
Amendment Type:	**Non Substantial**

Thank you for submitting the above referenced amendment. In line with the UK Process for Handling UK Study Amendments I can confirm that this amendment has been categorised as:

Category C - An amendment that has no implications that require management or oversight by the participating NHS organisations

As such, the sponsor may implement this amendment **as soon as any relevant regulatory approvals are in place** (for participating organisations in England, please see 'Confirmation of Assessment Arrangements' below).

As Chief Investigator/Sponsor, it remains your responsibility to ensure that the research management offices and local research teams (if applicable) at each of your participating organisations are informed of this amendment.

Note: you may only implement changes described in the amendment notice or letter.

Participating NHS Organisations in England – Confirmation of Assessment Arrangements

Further to the details above, I can confirm that no HRA assessment of this amendment is needed.

- If this study has HRA Approval, this amendment may be implemented at participating NHS organisations in England once the conditions detailed in the categorisation section above have been met
- If this study is a pre-HRA Approval study, this amendment may be implemented at participating NHS organisations in England that have NHS Permission, once the conditions detailed in the categorisation section above have been met. For participating NHS organisations in England that do not have NHS Permission, these sites should be covered by HRA Approval before the amendment is implemented at them, please see below;

- If this study is awaiting HRA Approval, I have passed your amendment to my colleague in the assessment team and you should receive separate notification that the study has received HRA Approval, incorporating approval for this amendment.

Please do not hesitate to contact me if you require further information.

Kind regards

Kirsten

Kirsten Peck | HRA Approval Amendment Co-ordinator

Health Research Authority
Bristol HRA Centre, Level 3, Block B, Whitefriars, Lewins Mead, Bristol, BS1 2NT
e-mail: kirsten.peck@nhs.net

T: 02071048051

www.hra.nhs.uk

IMPORTANT – **Click here** for the latest details of the roll-out of HRA Approval in England

The HRA is keen to know your views on the service you received – our short feedback form is available **here**

Appendix 25. Abstract STI & HIV World Congress Rio de Janerio (Brazil), July 2017

Psychosocial Determinants of Sexual Practices among Women Using Heroin and Other Drugs: A Systematic Literature Review

Authors

Medina-Perucha L[1], Family H[1], Dack C[2], Scott J[1], Barnett J[2]

[1] Department of Pharmacy & Pharmacology, University of Bath (United Kingdom)

[2] Department of Psychology, University of Bath (United Kingdom)

Introduction

Women using heroin and other drugs (WHOD) are at high risk of sexually transmitted infections (STIs) and blood-borne viruses (BBVs). However, little attention has been paid to identify the psychosocial determinants of sexual practices among these women. An overview of these determinants could be key for health professionals and policy makers, to tackle STIs and BBVs and promote health among WHOD. The main aims of this study were to review the literature on the psychosocial determinants of sexual practices among WHOD, and to determine the nature and quality of the evidence.

Methods

The search strategy included five databases: PubMed, EMBASE, PsycNET, Web of Science and Scopus. PsycEXTRA was used for grey literature and other publications. Search terms included “women *”, “heroin use*”, “sexual behaviour*”, and “HIV". Only publications in English, and published between 1995 and June 2016 were included. The PRISMA 2009 guidelines and the Hawken method were used for quality assessment purposes. This systematic review was registered with PROSPERO (Ref. CRD42016039842).

Results

Out of the 11,985 publications screened, 30 peer-reviewed articles were included. Most publications were cross-sectional (n=27) quantitative studies (n=23), amounting 10,808 women. Psychosocial determinants identified included socio-demographic characteristics, sexual orientation, financial constraints, gender roles, gender-based violence, HIV status, feelings of love and trust, and unavailability of condoms.

Conclusion

This systematic review provides an insight into the psychosocial determinants of sexual risk practices of WHOD, and highlights the importance of conducting women-only studies. It also identifies research gaps, such as the need to focus on protective factors, relationship dynamics, sexual risks with non-paying partners, and the study of the broader sociocultural context of sex and sexuality. Overall, these findings could be crucial for the development of preventive strategies to tackle STIs and BBVs, and promote the sexual health and psychosocial wellbeing of WHOD.

Please indicate if this research is published or unpublished:

☐ **published**

☒ **unpublished**

Disclosure of Interest Statement:

The authors have no conflicts of interest.

Appendix 26. Abstract Society for the Study of Addiction Symposium Newcastle (UK), November 2017

Psychosocial Factors of Sexual Practices among Women Using Heroin and Other Drugs: A Systematic Literature Review

Medina-Perucha L[1], Dack C[2], Family H[1], Scott J[1], & Barnett J[2]

[1] Department of Pharmacy & Pharmacology, University of Bath (United Kingdom)

[2] Department of Psychology, University of Bath (United Kingdom)

Aims

Women using heroin and other drugs (WHOD) are at high risk of sexually transmitted infections (STIs) and blood-borne viruses (BBVs). However, little attention has been paid on those factors that have a role in the development and maintenance of women's sexual behavior. This research aimed at identifying psychosocial factors of sexual practices, and providing evidence on the nature and quality of the available data.

Methods

The search strategy included five databases: PubMed, EMBASE, PsycNET, Web of Science and Scopus. PsycEXTRA was used for grey literature and other publications. Search terms included "women *", "heroin use*", "sexual behaviour*", and "HIV". The PRISMA 2009 guidelines was used for quality assessment purposes. This systematic review was registered with PROSPERO (Ref. CRD42016039842).

Results

Out of the 12,135 publications screened, 30 peer-reviewed articles were included. Most publications were cross-sectional (n=25) quantitative studies (n=23), amounting 11,305 women. These were socio-demographic characteristics; alcohol and drug using patterns; gender roles and violence against women; partner type, partner characteristics and context of sex; number of partners; preferences, negotiation and availability of condoms; sex work; HIV status and other sexually transmitted diseases; risk awareness and perception of control; love and trust; pregnancy, fertility and motherhood. These findings were however inconsistent due to the heterogeneity of the samples, the varied methodologies used, and how the outcomes were measured.

Conclusions

Overall, this review highlights important implications for future research and practice, such as the need to focus on relationship dynamics, the role of emotions, and the study of the broader sociocultural context of sex and sexuality. It also provides evidence for the development of STI/BBV preventive strategies, and promotion of sexual health and psychosocial wellbeing of WHOD.

* The data of this research project will be presented orally at the STI&HIV Wold Congress in July 2017.

Appendix 27. Permission to Include Publication 1

Laura Medina Perucha

From: Poongulazhali Vijayakumar <Poongulazhali.Jayaraj@springer.com>
Sent: 31 July 2018 10:10
To: Laura Medina Perucha
Subject: RE: URGENT - enquire publishing AIDS & Behavior // 10.1007/s10461-018-2238-7

Importance: High

Dear Dr. Laura Medina Perucha,

Thank you for contacting us.

Please note that once the article is published online, you can avail the permission to reuse the content in your thesis by accessing your article in Springer Link.

Do let me know if you have further questions.

Best regards,
Poongulazhali

Poongulazhali Vijayakumar
Production Editor
Journals Production

Springer Nature
T +91 44 4219 7756
F +91 44 4219 7757
Poongulazhali.Jayaraj@Springernature.com
www.springernature.com

From: Laura Medina Perucha [mailto:L.Medina.Perucha@bath.ac.uk]
Sent: Monday, July 30, 2018 1:32 PM
To: Poongulazhali Vijayakumar
Subject: URGENT - enquire publishing AIDS & Behavior

Good morning,

I just spoke to one of your colleagues over the phone and he directed me to you. I have just got a manuscript accepted for publication in AIDS & Behavior (DOI: 10.1007/s10461-018-2238-7). This article is part of a PhD study. I just wanted to check before accepting the licences that I could include this published article in my PhD thesis. My institution, the University of Bath, seems to support the costs for open access for this journal.

Thank you very much.

Kind regards,
Laura.

Appendix 28. Permission to Include Publication 2

Laura Medina Perucha

From: Social Science & Medicine <SocialScienceandMedi@elsevier.com>
Sent: 29 March 2018 10:36
To: Laura Medina Perucha
Subject: Re: Including my paper in my PhD thesis [180327-012715]

How was our service today?

Dear Dr Perucha

Thank you for your email,.

Could you kindly clarify on your point? You can include the paper in your thesis providing it was not published elsewhere beforehand.

You can find more information on that here:

https://www.elsevier.com/journals/social-science-and-medicine/0277-9536/guide-for-authors

Do let me know if this is unclear.

Regards
Masha

Masha Palos
Journal Manager
ELSEVIER Global Journals Production
Tel :+44 1392 285 874
ELSEVIER

From: Administrator
Date: 27/03/2018 02.55 PM

Dear Customer,

Thank you for submitting your question. This is to confirm that we have received your request and we aim to respond within 24 hours.

For future correspondence about this question, please provide this reference number: [180327-012715]. Please do not change the subject line of this email when you reply.

You can reach our support center at: https://service.elsevier.com/app/home/supporthub/publishing

Kind regards,
Elsevier Customer Service

From: Laura Medina Perucha
Date: 27/03/2018 02.55 PM

Good afternoon,

I am preparing a manuscript for the journal Social Science & Medicine. This paper is part of my PhD. As I am submitting a thesis my publication, I wanted to check whether I could include the submitted manuscript/published paper in my thesis.

Thank you.

Kind regards,
Laura Medina-Perucha.

Appendix 29. Permission to Include Publication 3

Laura Medina Perucha

From: noreply@salesforce.com on behalf of "Eugene Dela Cruz" <eugene.delacruz@springernature.com> <eugene.delacruz@springernature.com>
Sent: 20 November 2018 07:30
To: Laura Medina Perucha
Subject: 00954432 RE: Case number 00944845

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Dr. Perucha,

Thank you for contacting Springer Nature.

The open access articles published in BioMed Central's journals are made available under the Creative Commons Attribution (CC-BY) license, which means they are accessible online without any restrictions and can be re-used in any way, subject only to proper attribution (which, in an academic context, usually means citation).

The re-use rights enshrined in our license agreement (http://www.biomedcentral.com/about/policies/license-agreement) include the right for anyone to produce printed copies themselves, without formal permission or payment of permission fees. As a courtesy, however, anyone wishing to reproduce large quantities of an open access article (250+) should inform the copyright holder and we suggest a contribution in support of open access publication (see suggested contributions at http://www.biomedcentral.com/about/policies/reprints-and-permissions/suggested-contributions).

Please note that the following journals have published a small number of articles that, while freely accessible, are not open access as outlined above: Alzheimer's Research & Therapy, Arthritis Research & Therapy, Breast Cancer Research, Critical Care, Genome Biology, Genome Medicine, Stem Cell Research & Therapy.
You will be able to find details about these articles at http://www.biomedcentral.com/about/policies/reprints-and-permissions

If you have any questions, please do not hesitate to contact me.

With kind regards,

Eugene Dela Cruz
Global Open Research Support Executive
Global Open Research Support

Springer Nature
T +44 (0)203 192 2009
www.springernature.com

----------Your Question/Comment ----------

From: Laura Medina Perucha <L.Medina.Perucha@bath.ac.uk>
Sent: Tuesday, November 20, 2018 3:20 PM
To: Dela Cruz, Eugene
Subject: Re: 00954164 RE: Case number 00944845

Dear Eugene,

Thank you for your reply. This was my query:

Good morning,

I am preparing a manuscript for the BMC Public Health. This paper is part of my PhD. As I am submitting a thesis my publication, I wanted to check whether I could include the submitted manuscript/published paper in my thesis.

Thank you.

Kind regards,

Laura Medina-Perucha.

Kind regards,
Laura Medina-Perucha.

Laura Medina-Perucha MBPsS MSc BSc
PhD Candidate in Health Psychology
Department of Pharmacy & Pharmacology
University of Bath
BA2 7AY Bath (UK)
l.medina.perucha@bath.ac.uk || (+44) 1225 384215

From: noreply@salesforce.com <noreply@salesforce.com> on behalf of "Eugene Dela Cruz" <eugene.delacruz@springernature.com>
<eugene.delacruz@springernature.com>
Sent: 19 November 2018 23:47
To: Laura Medina Perucha
Subject: 00954164 RE: Case number 00944845

Dear Dr. Perucha,

Thank you for contacting Springer Nature.

Please accept our apologies for any inconvenience this has caused.

Upon checking, I was not able to find the case 00944845.

Please could you let me know your query. I would be happy to assist you.

If you have any questions, please do not hesitate to contact me.

With kind regards,

Eugene Dela Cruz
Global Open Research Support Executive
Global Open Research Support

Springer Nature
T +44 (0)203 192 2009
www.springernature.com

----------Your Question/Comment ----------

Good afternoon,

I sent a query almost a month ago (case number 00944845) and I have not heard anything back yet. I was wondering whether my query has been received and when am I expect to have an answer?

Thank you.

Kind regards,

Laura Medina-Perucha.
